OM protein - protein search, using sw model

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GenCore version 5.1.6

Run on: December 12, 2003, 14:43:27 ; Search time 52.1387 Seconds
               (without alignments)
               2036.647 Million cell updates/sec

Title: PCT-US03-24332-6
Perfect score: 3343
Sequence: 1 MDYKDDDDKLAAANXALRGT..........GDTSGDYKPALLLLLCGGEDD 669

Scoring table: BLOSUM62
               Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :   A_Geneseq_19Jun03:*
         1: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
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        24: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA2003.DAT:*

SUMMARIES

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

Result No.	Score	% Query Match	Length	DB	ID	Description
1	3337	99.8	669	24	ABP56249	Modified annexin P
2	1708	51.1	786	11	AAR03726	Human placenta-der
3	1706	51.0	672	11	AAR03725	Human placenta-der
4	1688	50.5	675	24	ABU54621	Human NCVX polypep
5	1593	47.7	319	24	ABP56248	Human annexin V pr
6	1580	47.3	318	20	AAY13925	S65T GFP variant/h
7	1570	47.0	319	16	AAR75695	Rat annexin-V. Ra
8	1558	46.6	736	22	ABG19948	Novel human diagno
9	1530	45.8	319	20	AAY13924	S65T GFP variant/h

RESULT 1
ABP56249

ID   ABP56249 standard; protein; 669 AA.
XX
AC   ABP56249;
XX
DT   28-MAR-2003 (first entry)
XX
DE   Modified annexin protein SEQ ID NO:6.
XX
KW   Annexin; modified; thrombosis; annexin V; thrombolytic;
KW   coronary thrombosis; overt cerebral thrombosis; arterial thrombosis;
KW   transient cerebral ischaemic attack; venous thrombosis.
XX
OS   Homo sapiens.
OS   Synthetic.
XX
FH   Key   Location/Qualifiers
FH
FT   Misc-difference 15
FT   /label= unknown
FT   /note= "encoded by TCN"
FT   Misc-difference 334
FT   /label= unknown
FT   /note= "encoded by NNN"
FT   Misc-difference 351
FT   /label= unknown
FT   /note= "encoded by NNN"
XX
PN   WO20026785-7-A2.
XX
PD   06-SEP-2002.
XX

ALIGNMENTS

No.	Score	% Match	Length	DB	ID	Description
10	1530	45.8	319	23	ABB57067	Mouse ischaemic co
11	1452.5	43.4	600	21	AAY92930	Annexin V/urokinas
12	1451.5	43.4	319	13	AAR26276	CPB-1. Homo sapie
13	1451.5	43.4	319	14	AAR41021	Calphobindin I (CP
14	1451.5	43.4	319	23	ABG325550	Human CPB-1 protei
15	1451.5	43.4	320	9	AAP80511	Placental coagulat
16	1451.5	43.4	320	10	AAP91953	Vascular anti-coag
17	1451.5	43.4	320	12	AAR13082	PAP-I. Homo sapie
18	1451.5	43.4	320	12	AAY13923	S65T GFP variant/h
19	1451.5	43.4	320	11	AAY84788	Amino acid sequenc
20	1451.5	43.4	320	21	ABG31220	Human annexin V, c
21	1451.5	43.3	320	10	AAP80053	anticoagulant PP4
22	1447.5	43.3	320	6	AAR26180	PAP-I isolated fro
23	1446.5	43.3	319	13	AAP82317	CPB-1. Homo sapie
24	1445.5	43.2	320	9	AAP80242	Sequence vascular
25	1445.5	43.2	320	9	AAP80714	Sequence vascular
26	1445.5	43.2	320	12	AAR11910	Vascular anticoagu
27	1442.5	43.1	327	22	AAS50863	Vascular anticoagu
28	1442.5	43.1	327	22	AAS50864	Modified human ann
29	1442.5	43.1	327	22	AAS50865	Modified human ann
30	1441.5	43.1	320	10	AAP91363	Human lipocortin-V
31	1419.5	42.5	319	13	AAR25718	Human lipocortin-V
32	1419.5	42.5	319	13	AAY13926	CPB-1. Homo sapie
33	921	27.6	321	23	ABG56279	S65T GFP variant/h
34	921	27.6	324	21	AAB43617	Human ovarian canc
35	920	27.5	321	21	AAP91913	Human cancer assoc
36	904.5	27.1	320	21	AAY84790	Amino acid sequenc
37	887	26.5	208	21	AAB58393	Anticoagulative PP
38	871	26.5	503	14	AAR34127	Lung cancer associ
39	863	26.1	505	14	AAR34128	Annexin XI type I
40	860	25.8	505	20	AAY07117	Annexin XI type I
41	852	25.7	299	23	ABF69394	Lung cancer associ
42	822.5	24.6	327	9	AAP80715	Sequence vascular
43	822.5	24.6	327	10	AAP91954	Sequence vascular
44	822.5	24.6	327	14	AAY35754	VAC-beta. Synthet
45	822.5	24.6	327	22	AAM78665	Human protein SEQ

PF   21-FEB-2002; 2002WO-US05079.
XX
PR   21-FEB-2001; 2001US-270402P.
PR   21-NOV-2001; 2001US-3325882P.
XX
PA   (SURR-) SURROMED INC.
XX
PI   Allison A;
XX
DR   WPI; 2003-1290062/12.
DR   N-PSDB; ABZ21926.
XX
PT   Novel isolated modified annexin proteins comprising annexin protein
PT   coupled to polyethylene glycol or additional proteins, useful for
PT   treating thrombosis e.g. coronary thrombosis and overt cerebral
PT   thrombosis -
XX
PS   Claim 6; Page 59-62; 62pp; English.
XX
CC   The present invention describes a modified annexin protein (I) comprising
CC   an annexin protein coupled to: (i) polyethylene glycol (PEG); or (ii) an
CC   additional protein. (I) has thrombolytic activity and can be used as a
CC   thrombosis modulator, and an inhibitor of cellular and humoral
CC   mechanisms by which platelet aggregation is amplified. (I) can be used
CC   for treating a subject at risk from thrombosis. Preferably, a
CC   pharmaceutical composition comprising (I) is administered to a subject
CC   after coronary thrombosis, overt cerebral thrombosis, or transient
CC   cerebral ischaemic attack. More preferably, the pharmaceutical
CC   composition is administered to a diabetic patient who is at risk of
CC   arterial thrombosis. The pharmaceutical composition can also be
CC   administered during pregnancy or parturition. (I) is also useful for
CC   treating arterial or venous thrombosis caused by any medical procedure
CC   or condition as described above. (I) prevents arterial or venous
CC   thrombosis without increasing haemorrhage. The present sequence
CC   represents a modified annexin protein from the present invention.
XX
SQ   Sequence   669 AA;

Query Match   99.8%; Score 3337; DB 24; Length 669;
Best Local Similarity   100.0%; Pred. No. 8.9e-241;
Matches   669; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 MDYKDDDDKLAAANXALRGTVTDFPSGFDGDRGRADAEVLRKAMKGLGTDEDSIINLLTARSNA 60
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MDYKDDDDKLAAANXALRGTVTDFPSGFDGDRGRADAEVLRKAMKGLGTDEDSIINLLTARSNA 60

Qy   61 QRQQIAEEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEK 120
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 QRQQIAEEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEK 120

Qy   121 VLTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAID 180
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   121 VLTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAID 180

Qy   181 DAQVELDAQQALFQAGELKWGTDEEKFITILGTRSVSHLRVFDKXYMTISGFQIEETIDRE 240
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   181 DAQVELDAQQALFQAGELKWGTDEEKFITILGTRSVSHLRVFDKXYMTISGFQIEETIDRE 240

Qy   241 TSGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF 300
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   241 TSGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF 300

Qy   301 RKNPATSLYSMIKGDTSGDYKRALLLICGGEDDXRSRSGLEVLFQGPGSTXALRGTVTDF 360
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   301 RKNPATSLYSMIKGDTSGDYKRALLLICGGEDDXRSRSGLEVLFQGPGSTXALRGTVTDF 360

Qy   361 SGFDGDRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRDLVNDMKSE 420
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   361 SGFDGDRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRDLVNDMKSE 420

Qy   421 LTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEE 480
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   421 LTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEE 480

Qy   481 YGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQQALFQAGELKWGTDEE 540
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   481 YGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQQALFQAGELKWGTDEE 540

Qy   541 KFITILGTRSVSHLRVFDKXYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIPAYIA 600
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   541 KFITILGTRSVSHLRVFDKXYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIPAYIA 600

Qy   601 ETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDTSGDYKKAL 660
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   601 ETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDTSGDYKKAL 660

Qy   661 LLLCGGEDD 669
          |||||||||
Db   661 LLLCGGEDD 669

RESULT 2
AAR03726
ID   AAR03726 standard; protein; 786 AA.
XX
AC   AAR03726;
XX
DT   25-MAR-2003 (updated)
DT   04-JUL-1990 (first entry)
XX
DR   WPI; 1990-024228/04.
DR   N-PSDB; AAQ02888.
XX
PI   Iwasaki A, Suda M, Saino Y;
XX
PA   (KOWA) KOWA CO LTD.
XX
PR   21-JUL-1988; 88JP-0182633.
XX
PF   19-JUL-1989; 89EP-0113261.
XX
PD   24-JAN-1990.
XX
PN   EP351826-A.
XX
OS   Homo sapiens.
XX
KW   Human; placenta; coagulation inhibitor; anticoagulant.
XX
DE   Human placenta-derived coagulation inhibitor protein.
XX
PT   Placental coagulation inhibitor polypeptide -
PT   having strong anticoagulation activities and obtained in large
PT   amount by recombinant DNA techniques.
XX
PS   Disclosure; fig. 5; 24pp; English.
XX
CC   The polypeptide has properties similar to those of placental
CC   coagulation inhibitor derived from the human placenta. It
CC   can be produced in large amounts and at a low price. It has
CC   strong anticoagulant activities and may be used for the
CC   prevention and treatment of eg thrombosis and DIC
CC   (disseminated intravascular coagulation) in the brain,
CC   heart and peripheral blood vessels such as cerebral and
CC   myocardial infarction. The DNA fragment encoding the CPB-II
CC   polypeptide was obtained from a human placental cDNA library
CC   using a CPB-II specific antibody as a probe. The DNA was
CC   used to prepare a recombinant plasmid which was then used to
CC   transform cells of a microorganism. See also AAR03725, AAQ02887
CC   and AAQ02888.
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence   786 AA;

Query Match   51.1%; Score 1708; DB 11; Length 786;
Best Local Similarity   51.2%; Pred. No. 4.4e-119;

Matches 344; Conservative 131; Mismatches 179; Indels 18; Gaps 5;

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Qy   12 AANXALRGTVTDFSGEPGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKT   71
           :||::|||||||||||||||| : :||
Db    5 AQGAKYRGSIHDFPGFDPNQDAEALYTAMKGFGSDKEAILDIITSRSNRQRQEVCQSYKS   64

Qy   72 LFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTP  131
        |:|:||| ||:|||||||:|| ||:|: ||   :||||||||||| |:|||||||:|
Db   65 LYGKDLIADLKYELTGKFERLIVGLMRPPAYCDAKEIKDAISGIGTDEKCLIEILASRTN  124

Qy  132 EELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLLVVLLQANRDPDTAIDDAQVELDAQAL  191
        | : | ||||| :|||||||||||||:|:|:|||:||||||    |:|:|| ||||:| ||
Db  125 EQMHQLVAAYKDAYERDLEADIIGDTSGHFQKMLVVLLQGTREEDDVVSEDLVQQDVQDL  184

Qy  192 FQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLA  251
        ::|||||||||| :||:|||.|||.:||:|||:|| ||| ||||:||:|:|||||:|:
Db  185 YEAGELKWGTDEAQFIYILGNRSKQHLRLVFDEYLKTTGKPIEASIRGELSGPFEKLMLA  244

Qy  252 VVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSM  311
        |||.||| |.| ||| | ||||.|||::||||:.||||:|::  ||| ||.. |||||||
Db  245 VVKCIRSTPEYFAERLFKAMKGLGTRDNTLIRIMVSRSELDMLDIREIFRTKYEKSLYSM  304

Qy  312 IKGDTSGDYKXALLLLCGGEDDXRSR---SGLEVLFQ----GPGSTXALRGTVTDFSGFD  364
        ||.|||| |||.|| | .|||||    . |||:|:|      |.||:||||||  :. |
Db  305 IKNDTSGEYKKTLTLKLSGGDDDAAQGFPFEAAQVAYQWMELSAVARVELKGTVRPANDFN  364

Qy  365 GRADAEVLRKAMKGLGTDEDSIINLLTARSNAQROQIAEEFKTLFGRDLVNDMKSELTGK  424
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Db  365 PDADAKALRKAMKGLGTDEDTIIDIITHRSNVQRQQIRQTFKSHFGRDLMTDLKSEIGD  424

Qy  425 FEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEEYGSN  484
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Db  425 LARLIGLMPPAHYDAKQLKKAMEGAGTDEKALIEILATRTNAEIRAINEAYKEDYHKS  484

Qy  485 LEDDVVGDTSGYYQRMLVVLLQANRDP-----DTAIDDAQVELDAQALFQAGELKWGTD-  538
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Db  485 LEDALSSDTSGHFRRLLISLATGHREEGGENLDQAREDAQV---AAEILEIADTPSGDKT  541

Qy  539 --EEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIP  596
          .| |:||| |||.||||||| :.| |:.  :  |: .||||::|:.  | .|:.:
Db  542 SLETRFMTILCTRSYPHLRRVFEEFIKMINYDVEHTIKKEMSGDVRDAFVAIVQSVRKKP  601

Qy  597 AVYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSGDY  656
        | : |  |: .|||||||:|.| |:|:||||:|| |:|.::  ||:. |.:.|:|||||:
Db  602 LPFADKLYKSMKGAGTDEKHLTRIMVSRSEIDLNIRRBEIEKYDKSLHQAIEGDTSGDF  661

Qy  657 KXALLLLCGGED  668
        |.||| |||||
Db  662 LKALLALCGGED  673
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RESULT 3
AAR03725
ID   AAR03725 standard; protein; 672 AA.
XX
AC   AAR03725;
XX
DT   25-MAR-2003 (updated)
DT   04-JUL-1990 (first entry)
XX
DE   Human placenta-derived coagulation inhibitor.
XX
KW   Human; placenta; coagulation inhibitor; anticoagulant.
XX
OS   Homo sapiens.
XX
PN   EP351826-A.
XX
PD   24-JAN-1990.
XX
PF   19-JUL-1989; 89EP-0113261.
XX
PR   21-JUL-1988; 88JP-0182633.

XX   (KOWA) KOWA CO LTD.
PA   Iwasaki A, Suda M, Saino Y;
XX
PI   WPI; 1990-024228/04.
DR   N-PSDB; AAQ02887.
XX
PT   Placental coagulation inhibitor polypeptide - having strong anticoagulation activities and obtained in large amount by recombinant DNA techniques.
XX
PS   Claim 2; page 15; 24pp; English.
XX
CC   The polypeptide has properties similar to those of placental coagulation inhibitor derived from the human placenta. It can be produced in large amounts and at a low price. It has strong anticoagulant activities and may be used for the prevention and treatment of eg thrombosis and DIC (disseminated intravascular coagulation) in the brain, heart and peripheral blood vessels such as cerebral and myocardial infarction. The DNA fragment encoding the CPB-II polypeptide was obtained from a human placental cDNA library using a CPB-II specific antibody as a probe. The DNA was used to prepare a recombinant plasmid which was then used to transform cells of a microorganism. See also AAQ02887. (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 672 AA;

Query Match   51.0%; Score 1706; DB 11; Length 672;
Best Local Similarity 51.0%; Pred. No. 5.1e-119;
Matches 343; Conservative 132; Mismatches 179; Indels 18; Gaps 5;

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Qy   12 AANXALRGTVTDFSGEPGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKT   71
           :||::|||||||||||||||| : :||
Db    4 AQGAKYRGSIHDFPGFDPNQDAEALYTAMKGFGSDKEAILDIITSRSNRQRQEVCQSYKS   63

Qy   72 LFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTP  131
        |:|:||| ||:|||||||:|| ||:|: ||   :||||||||||| |:|||||||:|
Db   64 LYGKDLIADLKYELTGKFERLIVGLMRPPAYCDAKEIKDAISGIGTDEKCLIEILASRTN  123

Qy  132 EELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLLVVLLQANRDPDTAIDDAQVELDAQAL  191
        | : | ||||| :|||||||||||||:|:|:|||:||||||    |:|:|| ||||:| ||
Db  124 EQMHQLVAAYKDAYERDLEADIIGDTSGHFQKMLVVLLQGTREEDDVVSEDLVQQDVQDL  183

Qy  192 FQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLA  251
        ::|||||||||| :||:|||.|||.:||:|||:|| ||| ||||:||:|:|||||:|:
Db  184 YEAGELKWGTDEAQFIYILGNRSKQHLRLVFDEYLKTTGKPIEASIRGELSGPFEKLMLA  243

Qy  252 VVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSM  311
        |||.||| |.| ||| | ||||.|||::||||:.||||:|::  ||| ||.. |||||||
Db  244 VVKCIRSTPEYFAERLFKAMKGLGTRDNTLIRIMVSRSELDMLDIREIFRTKYEKSLYSM  303

Qy  312 IKGDTSGDYKXALLLLCGGEDDXRSR---SGLEVLFQ----GPGSTXALRGTVTDFSGFD  364
        ||.|||| |||.|| | .|||||    . |||:|:|      |.||:||||||  :. |
Db  304 IKNDTSGEYKKTLTLKLSGGDDDAAQGFPFEAAQVAYQWMELSAVARVELKGTVRPANDFN  363

Qy  365 GRADAEVLRKAMKGLGTDEDSIINLLTARSNAQROQIAEEFKTLFGRDLVNDMKSELTGK  424
        . ||||.||||||||||||::|| ::|:|||.|| || :|: | |||| : ::|||::|
Db  364 PDADAKALRKAMKGLGTDEDTIIDIITHRSNVQRQQIRQTFKSHFGRDLMTDLKSEIGD  423

Qy  425 FEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEEYGSN  484
        : :|| |::  |:||| ||:|  |.| ||||.|:|:||:||. |::|||:.||:|:|:|:
Db  424 LARLIGLMPPAHYDAKQLKKAMEGAGTDEKALIEILATRTNAEIRAINEAYKEDYHKS  483

Qy  485 LEDDVVGDTSGYYQRMLVVLLQANRDP-----DTAIDDAQVELDAQALFQAGELKWGTD-  538
        ||| :.|||||::|:||:.| :|:.     .|||:||||.|:||||| | |||||||
Db  484 LEDALSSDTSGHFRRLLISLATGHREEGGENLDQAREDAQV---AAEILEIADTPSGDKT  540

Qy  539 --EEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIP  596
          .| |:||| |||.||||||| :.| |:.  :  |: .||||::|:.  | .|:.:
Db  541 SLETRFMTILCTRSYPHLRRVFEEFIKMINYDVEHTIKKEMSGDVRDAFVAIVQTVRKNP  600
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Qy    597  AYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATISLYSMIKGDTSGDY  656
               ||:|:||||.|.|.|||:::.:||||||||||||||||||||||.|:|::||||||||:|||
Db    601  LFFADKLYKSMKGAGTDEKTLTRIMVSRSEIDLLNIRREFIEKYDKSLHQAIBGDTSGDF  660

Qy    657  KKALLLLCGGED  668
               ||||||||||||
Db    661  LKALLALCGGED  672
```

RESULT 4

ID   ABU54621 standard; Protein; 675 AA.
XX
AC   ABU54621;
XX
DT   03-JUN-2003 (first entry)
XX
DE   Human NOVX polypeptide #80.
XX
KW   Human; NOVX; metabolic disorder; cardiomyopathy; diabetes; ASD;
KW   hypertension; congenital heart defect; aortic stenosis; valve disease;
KW   atrial septal defect; atrioventricular canal defect; ductus arteriosus;
KW   pulmonary stenosis; subaortic stenosis; ventricular septal defect; VSD;
KW   tuberous sclerosis; atherosclerosis; infectious disease;
KW   obesity; anorexia; neurodegenerative disorder; Alzheimer's disease;
KW   Parkinson's disease; immune disorder; haematopoietic disorder;
KW   haemophilia; hypercoagulation; Crohn's disease; cancer.
XX
OS   Homo sapiens.
XX
PN   WO200281498-A2.
XX
PD   17-OCT-2002.
XX
PF   03-APR-2002; 2002WO-US10780.
XX
PR   02-APR-2002; 2002US-0114270.
XX
PA   (CURA-) CURAGEN CORP.
XX
PI   Guo X, Kekuda R, Miller CE, Malyankar UM, Spytek KA, Patturajan M;
PI   Liu L, Gusev VY, Li L, Vernet CAM, Zerhusen BD, Gorman L;
PI   Shenoy SG, Pena CEA, Smithson G, Burgess CE, Gerlach V;
PI   Padigaru M, Shimkets RA, Gangolli EA, Taupier RJ, Casman SJ, Ji W;
PI   Anderson DW, Leite MW, Rastelli L, Edinger SR, Stone DJ;
PI   Macdougall JR, Rothenberg ME, Mazur A, Millet I, Peyman JA;
PI   Ellerman K;
XX
PR   WPI; 2003-046858/04.
DR   N-PSDB; ABX72249.
XX
PT   New isolated NOVX polypeptide useful for treating atherosclerosis,
PT   metabolic disorders, diabetes, obesity, infectious disease, anorexia,
PT   neurodegenerative disorders, Alzheimer's disease and cancer -
XX
PS   Claim 1; Page 263-264; 666pp; English.
XX
CC   The invention relates to human polypeptides, termed NOVX, and the
CC   polynucleotides encoding them. The polypeptides and polynucleotides are
CC   useful for diagnosing disease, and screening for potential therapeutic
CC   agents. The sequences are useful for treating metabolic disorders,
CC   cardiomyopathy, diabetes, hypertension, congenital heart defects, aortic
CC   stenosis; atrial septal defect (ASD), atrioventricular canal defect;
CC   ductus arteriosus, pulmonary stenosis, subaortic stenosis, ventricular
CC   septal defect (VSD), valve disease, tuberous sclerosis, scleroderma,
CC   atherosclerosis, obesity; infectious disease, anorexia, neurodegenerative
CC   disorders, Alzheimer's disease, Parkinson's disease, immune disorders,
CC   haematopoietic disorders, haemophilia, hypercoagulation, Crohn's disease
CC   and cancer. Sequences ABU54542-ABU54647 represent human NOVX polypeptides
CC   of the invention.
XX
SQ   Sequence 675 AA;

Query Match   50.5%; Score 1688; DB 24; Length 675;
Best Local Similarity   50.5%; Pred. No. 1.1e-117;
Matches 342; Conservative 130; Mismatches 179; Indels 26; Gaps 5;

```
Qy     12  AANXALRGTVTDFSGFDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKT   71
               ||:: |:::|||.||:||.:.|||.|:|::||||||||||:::::|.||:||:|::|::|
Db      5  AQGAKYRGSIHDPPGFDFDNQDAEALIYPAMKGFGSDKEAILDIITSRSNRQREVCQSYKS   64

Qy     72  LFGRDLIVANDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTP  131
               |:||||.:|::||::||||||||:|||||||||||||:|:||||||||||:|:|::||:|||
Db     65  LYGRDLIADLKYELTGKFERLIVGLMPPAYCDAKIKDALSGIGTDEKCLIEILASRTN  124

Qy    132  EELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDAIDDAQVELDAQAL  191
               |:::|:   |:::|.|||.:|..||.||||.:|:.|||:|:|||||:::|:|:||||||
Db    125  EQMHQLVAAYKDAYERDLEADIIGDTSGHFQKMLVVLLQGTREEDDVVSEDLVQQDVQDL  184

Qy    192  FQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMIISGFQOIEEIIDREISGNLENLLA  251
               |.|||||||||||||:|:|.|:|.|:|||||.:|:::||:||||.|.|:::||:|||:|.
Db    185  YEAGELKWGTDEAQFIYILGNRSKQHLRLVFDEYLKTTGKPIEASIRGELSGDFEKLMLA  244

Qy    252  VVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSM  311
               ::|:.|.|:||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245  VVKCIRSTPEYFAERLFKAMKGLGTRDNTLIRIMVSRSELDMLDIREIFRTKYEKSLYSM  304

Qy    312  IKGDTSGDYKKALLLLCGGEDXRSR---SGLBVLFQ--------------GPGSTXALRGT  356
               ||||||||||:||||||||||||:|   :|||||:|              :|.|:|||||
Db    305  IKNDTSGIYKKTLLKLSGGDDDAAGQFFPEAAQVAYQMWELSAVARVELKAVARVELKGT  364

Qy    357  VTDFPSGFDGRADAEVLRXAMKGLGTBEDSINLLLTARSNAQRQQIAEEFKTLFGRDLVND  416
               |||:|||||||||||||:.|||||||:||::|||||:|||.||||||||||||||||:|||
Db    365  VRPANDFNPDADAKALRXAMKGLGTDEDTIIDIITHRSNVQRQQIRQTFKHFGRDLMTD  424

Qy    417  MKSSLTGKFEKLIVALMXPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQA  476
               ||:|:||||||:||:::.:||:|:||||||||||||||||:|::||:||:|||||:|:|:
Db    425  LKSEISGDLARLILGLNWPPAHYDAKQLKRAWBGAGTDEKALIEILATRTNAEIRAINEA  484
```

```
Qy    477 YEEEYGSNLEDDVVGDTSGYYQRMLVULLQANRD-------DTAIDDAQVELDAQALFQAG 531
          |:|:|  |||  ||| :   :                       :|
Db    485 YKEDYHKSLEDALSSDTSGHFRRILSLATGHRESGGENDQAREDAQEIADT------PSG 540

Qy    532 ELKWGTDEEKFTILGTRSVSHLRVFDKYMTISGPQIEETIDRETSGNLENLLLAVVKS 591
          |:|:|| |||:|| |||||||||||||||||:::||||||:||||:||||||
Db    541 DKT--SLETRFWTILCTRSVPHLRRVFQEFIKMTNVDVEHTIKKEMSGDVRDAFVAIVQS 598

Qy    592 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 651
          :::||||||||||||||||:||| |||||:||||||:||||:||||
Db    599 VKNKPLFFADKLYKSMKGAGTDEKTLTRIMVSHSEIDLLNIRREFIEKYDKSLHQAIEGD 658

Qy    652 TSGDYKKALLLLCGGED 668
          ||:|||||||:||||
Db    659 TSGDFLKALLALCGGED 675

RESULT 5
XX
PN   WO200267857-A2.
XX
PD   06-SEP-2002.
XX
DR   WPI; 2003-129062/12.
DR   N-PSDB; AB221925.
XX
PF   21-FEB-2002; 2002WO-US05079.
XX
PR   21-FEB-2001; 2001US-2704020P.
PR   21-NOV-2001; 2001US-3325B2P.
XX
PA   (SURR-) SURROMED INC.
XX
PI   Allison A;
XX
PT   Novel isolated modified annexin proteins comprising annexin protein
PT   coupled to polyethylene glycol or additional protein, useful for
PT   treating thrombosis e.g. coronary thrombosis and overt cerebral
PT   thrombosis -
XX
PS   Claim 6; Page 36; 62pp; English.
XX

ID   ABP56248 standard; protein; 319 AA.
XX
AC   ABP56248;
XX
DT   28-MAR-2003 (first entry)
XX
DE   Human annexin V protein SEQ ID NO:3.
XX
KW   Annexin; modified; thrombolytic; annexin V; thrombolytic;
KW   coronary thrombosis; overt cerebral thrombosis; arterial thrombosis;
KW   transient cerebral ischaemic attack; venous thrombosis.
XX
OS   Homo sapiens.
XX
```

CC The present invention describes a modified annexin protein (I) comprising
CC an annexin protein coupled to: (i) polyethylene glycol (PEG); or (ii) an
CC additional protein. (I) has thrombolytic activity and can be used as a
CC thrombosis modulator, and an inhibitor of cellular and humoral
CC mechanisms by which platelet aggregation is amplified. (I) can be used
CC for treating a subject at risk from thrombosis. Preferably, a
CC pharmaceutical composition comprising (I) is administered to a subject
CC after coronary thrombosis, overt cerebral thrombosis, or transient
CC cerebral ischaemic attack. More preferably, the pharmaceutical
CC composition is administered to a diabetic patient who is at risk of
CC arterial thrombosis. The pharmaceutical composition can also be
CC administered during pregnancy or parturition. (I) is also useful for
CC treating arterial or venous thrombosis caused by any medical procedure
CC or condition as described above. (I) prevents arterial or venous
CC thrombosis without increasing haemorrhage. The present sequence
CC represents human annexin V, which is used in an example from the
CC present invention.

```
XX
SQ   Sequence    319 AA;
XX
     Query Match             47.7%;  Score 1593;  DB 24;  Length 319;
     Best Local Similarity   100.0%;  Pred. No. 5.5e-111;
     Matches 318;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

Qy    16 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQIAEEFKTLFGR 75
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     2 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQIAEEFKTLFGR 61

Qy    76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    62 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 121

Qy   136 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 195
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   122 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 181

Qy   196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   182 ELKWGTDEEKFITILGTRSVSHLRRVFDKYKYMTISGFQIEETIDRETSGNLENLLLAVVKS 241

Qy   256 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 315
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 301

Qy   316 TSGDYKKALLLLCGGEDD 333
          ||||||||||||||||
Db   302 TSGDYKKALLLLCGGEDD 319

RESULT 6
XX
ID   AAY13925 standard; protein; 318 AA.
XX
AC   AAY13925;
XX
DT   13-JUL-1999 (first entry)
XX
DE   S65T GFP variant/hAnnexin V protein.
XX
KW   GFP; green fluorescent protein; annexin; fusion protein; apoptosis;
KW   fluorescent intensity; anionic phospholipid binding affinity;
KW   asymmetric distribution; plasma membrane phospholipid;
KW   apoptotic cell detection.
XX
OS   Aequorea victoria.
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9919470-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998; 98WO-US21444.
XX
PR   09-OCT-1997; 97US-0948276.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Ernst JD;
XX
PT   Bifunctional fusion protein useful for the detection of apoptotic
PT   cells
XX
DR   WPI; 1999-277634/23.
XX
PS   Claim 2; Page 17-18; 23pp; English.
XX
```

CC This sequence represents an example of a protein of the invention.
CC The proteins are bifunctional Aequorea green fluorescent protein
CC (GFP)-annexin fusion proteins, where the GFP and annexin moieties provide

CC   greater or equal fluorescent intensity and anionic phospholipid binding
CC   affinity, respectively, than do the corresponding unfused GFP and annexin
CC   proteins. An early manifestation of apoptosis is the loss of the
CC   asymmetric distribution of plasma membrane phospholipids, which results
CC   in exposure of anionic phospholipids on the extracellular leaflet of the
CC   plasma membrane. The GFP-annexin V fusion proteins are used for the
CC   detection of apoptotic cells by flow cytometry or fluorescent microscopy.
CC   The fusion proteins provide for homogeneously labelled annexin, with
CC   fluorescence properties that do not change upon binding membrane
CC   phospholipids, unlike prior art FITC-labelled annexins, where quenching
CC   of FITC-annexin V fluorescence by 40-50% occurs upon binding phospholipid
CC   membranes.
XX
SQ   Sequence   318 AA;

Query Match   47.3%;   Score 1580;   DB 20;   Length 318;
Best Local Similarity   99.4%;
Matches 316;   Conservative   0;   Mismatches   2;   Indels   0;   Gaps   0;

```
Qy   16 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 75
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 60

Qy   76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 120

Qy  136 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAG 195
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  121 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAG 180

Qy  196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  181 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 240

Qy  256 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 315
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  241 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 300

Qy  316 TSGDYKKALLLLCGGEDD 333
         ||||||||||||||||||
Db  301 TSGDYKKALLLLCGGEDD 318
```

RESULT 7
AAR75695
ID   AAR75695 standard; peptide; 319 AA.
XX
AC   AAR75695;
XX
DT   21-JAN-1996 (first entry)
XX
DE   Rat annexin-V.
XX
KW   Amyloid precursor protein; APP; annexin-V; Alzheimer's disease;
KW   disease diagnosis; therapy; antibody.
XX
OS   Rattus rattus.
XX
FH   Key   Location/Qualifiers
FT   Peptide   57..68
FT   Peptide   85..95
FT   Peptide   107..120
FT   Peptide   259..284
XX
PN   EP655626-A1.
XX
PD   31-MAY-1995.
XX
PF   10-NOV-1994; 94EP-0308309.
XX
PR   10-NOV-1993; 93US-0149975.
XX

PA   (MCLE-) MCLEAN HOSPITAL CORP.
XX
PI   Honda T, Nixon R;
XX
DR   WPI; 1995-195688/26.
XX
PT   New peptide(s) associated with Alzheimer's disease - namely p33 and
PT   the amyloid precursor C2 fragment, useful for the prodn. of
PT   diagnostic antibodies
XX
Disclosure; Fig.9; 32pp; English.

CC   This amino acid sequence is contained within the 33 kDa protein
CC   (p33) sequence and the indicated peptides are produced following
CC   lysyl-endopeptidase cleavage of p33. Detection and quantification
CC   of this protein is therefore useful for diagnosing the disease.
XX
SQ   Sequence   319 AA;

Query Match   47.0%;   Score 1570;   DB 16;   Length 319;
Best Local Similarity   98.7%;
Matches 314;   Conservative   1;   Mismatches   3;   Indels   0;   Gaps   0;

```
Qy   16 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 75
         |||||||||||||||||||||||||||||||||||||||||||||| ::||||||||||
Db    2 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 61

Qy   76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   62 DLVNDMKSELTGKFEGLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 121

Qy  136 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAG 195
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  122 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAG 181

Qy  196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  182 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 241

Qy  256 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 315
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 301

Qy  316 TSGDYKKALLLLCGGEDD 333
         ||||||||||||||||||
Db  302 TSGDYKKALLLLCGGEDD 319
```

RESULT 8
ABG19948
ID   ABG19948 standard; protein; 736 AA.
XX
AC   ABG19948;
XX
DT   18-FEB-2002 (first entry)
XX
DE   Novel human diagnostic protein #19939.
XX
KW   Human; chromosome mapping; gene mapping; gene therapy; forensic;
KW   food supplement; medical imaging; diagnostic; genetic disorder.
XX
OS   Homo sapiens.
XX
PN   WO200175067-A2.
XX
PD   11-OCT-2001.
XX
PF   30-MAR-2000; 2000US-0540217.
XX
PR   31-MAR-2000; 2001WO-US08631.
PR   23-AUG-2000; 2000US-0649167.
XX
PA   (HYSE-) HYSEQ INC.

```
XX
PI   Drmanac RT, Liu C, Tang YT;
XX
DR   WPI; 2001-639362/73.
DR   N-PSDB; AAS84135.
XX
PT   New isolated polynucleotide and encoded polypeptides, useful in
PT   diagnostics, forensics, gene mapping, identification of mutations
PT   responsible for genetic disorders or other traits and to assess
PT   biodiversity -
XX
PS   Claim 20; SEQ ID No 50307; 103pp; English.
XX
CC   The invention relates to isolated polynucleotide (I) and
CC   polypeptide (II) sequences. (I) is useful as hybridisation probes,
CC   polymerase chain reaction (PCR) primers, oligomers, and for chromosome
CC   and gene mapping, and in recombinant production of (II). The
CC   polynucleotides are also used in diagnostics as expressed sequence tags
CC   for identifying expressed genes. (I) is useful in gene therapy techniques
CC   to restore normal activity of (II) or to treat disease states involving
CC   (II). (II) is useful for generating antibodies against it, detecting or
CC   quantitating a polypeptide in tissue, as molecular weight markers and as
CC   a food supplement. (II) and its binding partners are useful in medical
CC   imaging of sites expressing (II). (I) and (II) are useful for treating
CC   disorders involving aberrant protein expression or biological activity.
CC   The polypeptide and polynucleotide sequences have applications in
CC   diagnostics, forensics, gene mapping, identification of mutations
CC   responsible for genetic disorders or other traits to assess biodiversity
CC   and to produce other types of data and products dependent on DNA and
CC   amino acid sequences. ABG00010-ABG30377 represent novel human
CC   diagnostic amino acid sequences of the invention.
CC   Note:The sequence data for this patent did not appear in the printed
CC   specification, but was obtained in electronic format directly from WIPO
CC   at ftp.wipo.int/pub/published_pct_sequences.
XX
SQ   Sequence  736 AA;

Query Match   46.6%;  Score 1558;  DB 22;  Length 736;
Best Local Similarity   49.4%;  Pred. No. 6.4e-108;
Matches 331; Conservative 127; Mismatches 188;  Indels 24; Gaps 11;

Qy   18 RGTVTDFPSGPGDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEKTLFGRDL 77
Db   70 RGSIHDPFGPDPNQDAEALYTAMKGFGSDKEAILDIITSRSNRQREGCHSYKSLYGKDL 129

Qy   78 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAXLGAGTDEKVLTEIIASRTPEEL-RA 136
Db  130 IADLKYELTGKFERLIVRLMRPPAYCDAKEIKDAISGIGTDEKCLIEILASRTNEQVHQL 189

Qy  137 IKQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 196
Db  190 VKRITRMPTERDLEADIIGDTSGHHQKMLVVLLQGTREEDDVVSEDLVQQDLVQDLVEAGE 249

Qy  197 LKWGTDEEKFIILLGTRSVSHLRRVFDKXMTISGPQIEETIDRETSGNLENLLLAVVKSI 256
Db  250 LKWGTDEAQFIYILGNRSKQHFLRLVFEDYELKITGKPIEASIRGELSGDFEKLMLAVVKCI 309

Qy  257 RSIPAYLAETLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFA-TSLYSM-IKG 314
Db  310 RSTPEYFAERLFKAMKGLGTRDNTLIRIMWSRSELDMLDIREIFRTKYXEKSLYSMDIKN 369

Qy  315 DTSG-DYKALLLLCGGEDXRSR----SGLEVLFQ----GPGSTXALRGTVTDFPSGFDGR 366
Db  370 DTSGQSYKXTLLKLSGGDDDAADQFFPKXAAQVAYQMWELSAVARVELKGTVRPANDFNPD 429

Qy  367 ADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEERKTLFGRDLVNDMKSELTGKFE 426
Db  430 ADAKALRKANKGLGTDEDTIIDIITHRSNVQRQIRQTFKSHFGRDLMTDLKSEISGDLA 489

Qy  427 KLIVALMKPSRLYDAYELKHAXLGAGTDEKVLTEIIASRTPEELRAIKQAYEEYGSNLE 486
Db  490 RLILGLMPPAHYDAKQLKKAMEGAGTDEKALIEILATRTNAEIRAINEAYKEDYHKSLE 549

Qy  487 DDVVGDTSGYYQRMLVVLLQANRDP------DTAIDDAQVELDAQALFQAGELKWGTD--- 538
Db  550 DALSSDTSGHFRRLIISLATGHREBGGNLDQAREDAQV--AAEILEIADIPSGDKTSL 606

Qy  539 EEKFITILGTRSVSHLRRVFDKXMTISGPQIEETIDRETSGNLENLLLAVVKSIRSIPAY 598
Db  607 ETRFWTILCTRSYPHVRRVIQEFIRLINYDVEHTIKKEMSGDIRDAFVAIVQSAKTKPLF 666

Qy  599 LAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEER-KNFATSLYSMIKG-DTSGDY 656
Db  667 FPDKLYKSMKGAGTDEKVLTRIMWSRGEIDLLNIRRGIPIEKFDKSLHQAIXGXTTTGDF 726

Qy  657 KKALLLLCGG 666
Db  727 LKALRALCGG 736

RESULT 9
AAY13924
ID   AAY13924 standard; protein; 319 AA.
XX
AC   AAY13924;
XX
DT   13-JUL-1999  (first entry)
XX
DE   S65T GFP variant/Annexin V protein.
XX
KW   GFP; green fluorescent protein; annexin; fusion protein; apoptosis;
KW   fluorescent intensity; anionic phospholipid binding affinity;
KW   asymmetric distribution; plasma membrane phospholipid;
KW   apoptotic cell detection.
XX
OS   Aequorea victoria.
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9919470-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998;  98WO-US21444.
XX
PR   09-OCT-1997;  97US-0948276.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Ernst JD;
XX
DR   WPI; 1999-277634/23.
XX
PT   Bifunctional fusion protein useful for the detection of apoptotic
PT   cells
XX
PS   Claim 2; Page 15-17; 23pp; English.
XX
CC   This sequence represents an example of a protein of the invention.
CC   The proteins are bifunctional Aequorea victoria green fluorescent protein
CC   (GFP)-annexin fusion proteins, where the GFP and anionic phospholipid binding
CC   greater or equal fluorescent intensity and anionic phospholipid binding
CC   affinity, respectively, than do the corresponding unfused GFP and annexin
CC   proteins. An early manifestation of apoptosis is the loss of the
CC   asymmetric distribution of plasma membrane phospholipids, which results
CC   in exposure of anionic phospholipids on the extracellular leaflet of the
CC   plasma membrane. The GFP-annexin V fusion proteins are used for the
CC   detection of apoptotic cells by flow cytometry or fluorescent microscopy.
CC   The fusion proteins provide for homogeneously labelled annexin, with
CC   fluorescence properties that do not change upon binding membrane
CC   phospholipids, unlike prior art FITC-labelled annexins, where quenching
CC   of FITC-annexin V fluorescence by 40-50% occurs upon binding phospholipid
CC   membranes.
XX
SQ   Sequence  319 AA;
```

Query Match   45.8%; Score 1530; DB 20; Length 319;
Best Local Similarity 95.3%; Pred. No. 2.8e-106;
Matches 303; Conservative 7; Mismatches 8; Indels 0; Gaps 0;

```
Qy  16 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR  75
        | ||||||| ||||||||||||||||||||||||||||||| ||||||| ||| ||||||
Db   2 ATRGTVTDFPGFDGRADAEVLRKAMKGLGTDEDSILNLLTSRSNAQRQEIAQEFKTLFGR  61

Qy  76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135
        ||:|:|||||||||||||||:|||||||||||||| ||||||||||||||||||||||
Db  62 DLVDDLKSELTGKFEKLIVAMMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEELS 121

Qy 136 AIKQAYEEBYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 195
        ||||:|||:||||||||||||||||||||||||||||||||||||||||||||||||||
Db 122 AIKQVYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 181

Qy 196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
        |||||||||||| |||||||||||||||||| |||||||||||||||||| |||||||||
Db 182 ELKWGTDEEKFIIILGTRSVSHLRRVFDKYMIISGFQIEETIDRETSGNLEQLLLAVVKS 241

Qy 256 IRSIPAYLAETLLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 315
        |||||||||||:|||||||||||||||||:||||||||||||||||||||||||||||||
Db 242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVVVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 301

Qy 316 TSGDYKKALLLLCGGEDD 333
        ||||||||||||||||||
Db 302 TSGDYKKALLLLCGGEDD 319
```

RESULT 10

ID   ABB57067 standard; Protein; 319 AA.
XX
AC   ABB57067;
XX
DT   07-MAR-2002 (first entry)
XX
DE   Mouse ischaemic condition related protein sequence SEQ ID NO:136.
XX
KW   Mouse; ischaemia; compressive ischaemia; occlusive ischaemia;
KW   vasospastic ischaemia; ischaemic condition; ischaemic disease.
XX
OS   Mus musculus.
XX
XX
PN   WO200188188-A2.
XX
PD   22-NOV-2001.
XX
PF   18-MAY-2001; 2001WO-JP04192.
XX
PR   18-MAY-2000; 2000JP-0145977.
XX
PA   (UYNI-) UNIV NIHON SCHOOL JURIDICAL PERSON.
XX
PI   Ishikawa K, Asai S, Takahashi Y, Nagata T, Ishii Y;
XX
DR   WPI; 2002-034733/04.
DR   N-PSDB; ABI99289.
XX
PT   Examining the ischemic condition (e.g. occlusive ischemia) by measuring
PT   expression levels of particular genes defined in the specification or
PT   by determining the expression profile of a gene group comprising these
PT   genes -
XX
PS   Claim 2; Page 419-421; 2690pp; English.

CC   The present invention describes a method for examining ischaemic
CC   conditions, comprising measuring the expression levels of particular
CC   genes (I) in a test sample or determining the expression profile of a
CC   gene group in the sample comprising genes selected from (I). The method
CC   is useful for examining the ischaemic condition (e.g. compressive
CC   ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring
CC   expression levels of particular genes (ABI99202 to ABI99912, encoding
CC   the protein sequences in ABB57020 to ABB57374) or by determining the
CC   expression profile of a gene group comprising these genes. The
CC   expression levels or expression profiles produced by these genes are
CC   used as an indicator when screening for ischaemic condition-improving
CC   drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914
CC   represent PCR primers for a mouse ischaemic condition related sequence,
CC   which are used in the exemplification of the present invention.
XX
SQ   Sequence 319 AA;

Query Match   45.8%; Score 1530; DB 23; Length 319;
Best Local Similarity 95.3%; Pred. No. 2.8e-106;
Matches 303; Conservative 7; Mismatches 8; Indels 0; Gaps 0;

```
Qy  16 ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR  75
        | ||||||| ||||||||||||||||||||||||||||||| ||||||| ||| ||||||
Db   2 ATRGTVTDFPGFDGRADAEVLRKAMKGLGTDEDSILNLLTSRSNAQRQEIAQEFKTLFGR  61

Qy  76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135
        ||:|:|||||||||||||||:|||||||||||||| ||||||||||||||||||||||
Db  62 DLVDDLKSELTGKFEKLIVAMMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEELS 121

Qy 136 AIKQAYEEBYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 195
        ||||:|||:||||||||||||||||||||||||||||||||||||||||||||||||||
Db 122 AIKQVYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 181

Qy 196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
        |||||||||||| |||||||||||||||||| |||||||||||||||||| |||||||||
Db 182 ELKWGTDEEKFIIILGTRSVSHLRRVFDKYMIISGFQIEETIDRETSGNLEQLLLAVVKS 241

Qy 256 IRSIPAYLAETLLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 315
        |||||||||||:|||||||||||||||||:||||||||||||||||||||||||||||||
Db 242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVVVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 301

Qy 316 TSGDYKKALLLLCGGEDD 333
        ||||||||||||||||||
Db 302 TSGDYKKALLLLCGGEDD 319
```

RESULT 11

ID   AAY92930 standard; Protein; 600 AA.
XX
AC   AAY92930;
XX
DT   25-OCT-2000 (first entry)
XX
DE   Annexin V/urokinase fusion protein.
XX
KW   Annexin V; thrombocyte; carrier; thrombus; thrombolytic; fusion protein;
KW   urokinase; insect cell; fibrinolysis.
XX
OS   Unidentified.
XX
PN   CN1247195-A.
XX
PD   15-MAR-2000.
XX
PF   12-MAR-1999; 99CN-0113524.
XX
PR   12-MAR-1999; 99CN-0113524.
XX
PA   (SHAN-) SHANGHAI INST BIOCHEMISTRY CHINESE ACAD.
XX
PI   Wu X, Sun J, Yang G;
XX
DR   WPI; 2000-413098/36.
DR   N-PSDB; AAA11241.
XX
PT   New thrombolytic fusion protein for targetting thrombus - comprises
PT   fusion of Annexin V and urokinase
XX
PS   Claim 2; Page 2-4; 20pp; Chinese.

```
XX
CC   Annexin V, which has high affinity for active thrombocytes, is used
CC   as a carrier molecule to build a thrombus-targeting thrombolytic fusion
CC   protein. The protein (this sequence) is the result of expression of a
CC   fusion gene comprising the Annexin V gene and a low-molecular urokinase
CC   gene, in insect cells. The Annexin V-scu-PA-32 fusion protein, expressed
CC   in insect cell strain Tn-5B1-4, has high affinity for active thrombocytes
CC   and has the fibrinolytic activity of urokinase.
XX
SQ   Sequence  600 AA;

Query Match             43.4%;  Score 1452.5;  DB 21;  Length 600;
Best Local Similarity   87.3%;  Pred. No. 3.7e-100;
Matches  290;  Conservative  18;  Mismatches  23;  Indels  1;  Gaps  1;

Qy      2 DYKDDDDKLAAANXALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQ 61
            :::|  :|      |||:||||||||||||||||||||||||||||||||||||||||||
Db    270 DFEEIPEEYLEMAQVLRGTLTDFPGFDERADAETLRKAMKGLGTDEDSILTLLTSRSNAQ 329

Qy     62 RQQIAEEFKTLFGRDLVNDVKRSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKV 121
           :|||||||||||||||::||  |||||||||||||||||||||||||||||||  ||||:|
Db    330 RQEISAAFKTLFGRDLLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKV 389

Qy    122 LTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDD 181
           ||||||||||||||:||| ||||||||:|||||||||||||||||||||||||| |||||
Db    390 LTEIIASRTPEELRALKQVVEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDE 449

Qy    182 AQVELDAQALFQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRET 241
           |||| |||||||||||||||||||||||:||||||||||:|||||||||||||||||||||
Db    450 AQVEQDAQALFQAGELKWGTDEEKFITIFGTRSVSHLRKVFDKYMTISGFQIEETIDRET 509

Qy    242 SGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFR 301
           |||||:|||||||||||||||||||||||||||||||||||||:||||||||||||||||
Db    510 SGNLEQLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLFNIRKEFR 569

Qy    302 KNFATSLYSMIKGDTSGDYKKALLLLCGGEDD 333
           ||||||||||||||||||||||||||| ||||
Db    570 KNFATSLYSMIKGDTSGDYKKALLLLC-GEDD 600
```

```
RESULT 12
AAR26276
ID   AAR26276 standard; protein; 319 AA.
XX
AC   AAR26276;
XX
DT   10-MAR-2003  (updated)
DT   04-FEB-1993  (first entry)
XX
PN   JP04198195-A.
XX
PD   17-JUL-1992.
XX
PF   28-NOV-1990;  90JP-0328286.
XX
PR   28-NOV-1990;  90JP-0328286.
XX
OS   Homo sapiens.
XX
KW   CPB-I; stabilisation; frozen; molten; processed; activity.
XX
DE   CPB-I.
XX
PA   (KOWA ) KOWA CO LTD.
PA   (KAGA ) KAGAKU OYOBI KESSEI RYOHO.
XX
DR   WPI; 1992-288937/35.
XX
PT   Stabilisation of CPB-1 for drug compsn. - by adding basic
PT   aminoacid selected from lysine, arginine and/or ornithine
XX
PS   Disclosure; Page 2; 4pp; Japanese.
XX
CC   The sequence given is the amino acid sequence of CPB-I. CPB-I was
CC   used within a method which involved adding basic amino acids to it
CC   which resulted in its stabilisation. This lead to the production of
CC   CPB-I which keeps its activity when it is frozen, molten or has been
CC   processed by several procedures.
CC   (Updated on 10-MAR-2003 to add missing OS field.)
XX
SQ   Sequence  319 AA;

Query Match             43.4%;  Score 1451.5;  DB 13;  Length 319;
Best Local Similarity   91.5%;  Pred. No. 2e-100;
Matches  290;  Conservative  12;  Mismatches  14;  Indels  1;  Gaps  1;

Qy     17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRD 76
           ||||||||:|||:||||||:|||||||||||||||:::||:||||||:|:||||||||||
Db      4 LRGTVTDFPGFDERADAETLRKAMKGLGTDEDSILTLLTSRSNAQRQEISAAFKTLFGRD 63

Qy     77 LVNDVKRSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 136
           |::|  |||||||||||||||||||||||||||||||  ||||:||||||||||||||||
Db     64 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 123

Qy    137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAGE 196
           |||| |||||||:|||||||||||||||||||||||||| |||||||||| |||||||||
Db    124 IKQVVEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 183

Qy    197 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 256
           |||||||||||||:||||||||||:|||||||||||||||||||||||||:|||||||||
Db    184 LKWGTDEEKFITIFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 243

Qy    257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 316
           |||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db    244 RSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 303

Qy    317 SGDYKKALLLLCGGEDD 333
           ||||||||||| |||||
Db    304 SGDYKKALLLLC-GEDD 319
```

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RESULT 13
AAR41021
ID   AAR41021 standard; protein; 319 AA.
XX
AC   AAR41021;
XX
DT   29-MAR-1994  (first entry)
XX
PN   JP05213769-A.
XX
PD   24-AUG-1993.
XX
PF   04-FEB-1992;  92JP-0019032.
XX
PR   04-FEB-1992;  92JP-0019032.
XX
OS   Homo sapiens.
XX
KW   Calphobindin I; CPB-I; Protein kinase C; PKC; inhibition; tumour.
XX
DE   Calphobindin I (CPB-I).
XX
PA   (KOWA ) KOWA CO LTD.
PA   (KAGA ) ZH KAGAKU OYOBI KESSEN RYOHO KENKYUSHO.
XX
DR   WPI; 1993-299558/38.
XX
PT   Protein kinase C inhibitor effective against malignant tumours -
PT   comprises (opt. recombinant) calphobindin I
XX
PS   Claim 1; Page 2-3; 6pp; Japanese.
XX
CC   Calphobindin I (CPB-I) or recombinant calphobindin I (r-CPB-I)
CC   inhibits protein kinase C (PKC) and is useful in the treatment of
CC   malignant tumours caused by abnormal activation of PKC. CPB-I is
```

RESULT 14
ID   ABG32550
AC   ABG32550;
XX
DT   29-NOV-2002 (first entry)
XX
DE   Human CPB-1 protein.
XX
KW   Human; CPB-I; eye drop; ophthalmological; anexin V; corneal disease;
KW   calcium/phospholipid binding protein; polyhydric alcohol.
OS   Homo sapiens.
XX
PN   WO2002679977-A1.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-JP01563.
XX
PR   26-FEB-2001; 2001JP-0050297.
XX
PA   (KOWA) KOWA CO LTD.
PA   (KAGA) CHEMO-SERO-THERAPEUTIC RES INST.
XX
PI   Naruse H, Sano M, Shinoda Y, Inagi T;
XX
DR   WPI; 2002-674988/72.
XX
PT   Eye drops for treating e.g. corneal diseases, contain CPB-I and
PT   polyhydric alcohol with specific carbonyl value, without unpleasant
PT   irritation upon dropping but with satisfactory long-term storability -
XX
PS   Disclosure; Page 13-14; 16pp; Japanese.
XX
CC   The invention relates to eye drops contain CPB-I (anexin V) and a
CC   polyhydric alcohol having a carbonyl value of not more than
CC   5micro Mol /g. The eyes drops are for treating e.g. corneal diseases.
CC   extracted from human or animal organs and may be applied
CC   intravenously, orally, intramuscularly, percutaneously or rectally.
XX
SQ   Sequence 319 AA;

ABG32550 standard; protein; 319 AA.

Query Match   43.4%; Score 1451.5; DB 14; Length 319;
Best Match
Best Local Similarity   91.5%; Pred. No. 2e-100;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

Qy   17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRD 76
         |||||||| ::|| :|||||:|||||||||||::|||||||||||||||||:::|||||
Db   4 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 63

Qy   77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 136
         :::|:|:|||||||||:|||||||||||||||||| ||:|||||||||:|||||||||||
Db   64 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 123

Qy 137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 196
         |||:||||||||:||||||||||||||||:|||||||| ||||| ||:||:|||||||||
Db 124 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVLLLQANRDPDAGIDEAQVEQDAQALFQAGE 183

Qy 197 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 256
         ||||||||||||||||||||||||:||||||||||||||||||||||||:|||||||||
Db 184 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 243

Qy 257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 316
         ||||||||||||||||||||||||||||:||||||||||||||||||||:|||||||||||
Db 244 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFAISLYSMIKGDT 303

Qy 317 SGDYKKALLLLCGGEDD 333
         |||||||||||| ||||
Db 304 SGDYKKALLLLC-GEDD 319

RESULT 15
ID   AAP80511
AC   AAP80511;
XX
DT   25-MAR-2003 (updated)
DT   10-MAR-2003 (updated)
DT   12-NOV-1990 (first entry)
XX
DE   Placental coagulation inhibitor.
XX
KW   Placental coagulation inhibitor; disseminated vascular coagulation;
KW   thrombosis.
OS   Homo sapiens.
XX
PN   EP279459-A.
PN   JP03219875-A.
XX
PD   24-AUG-1988.
XX
PF   19-FEB-1988; 88EP-0102468.
XX
PR   20-FEB-1987; 87JP-0037227.
PR   23-JUL-1987; 87JP-0184428.
XX
PA   (KOWA) KOWA CO LTD.
XX
PI   Saino Y, Iwasaki A, Suda M;
XX
DR   WPI; 1988-236733/34.
DR   WPI; 1991-329110/45.
DR   N-PSDB; AAN81113.
XX
PT   Recombinant placental coagulation inhibitor - useful for the prevention
PT   and treatment of thromboses or disseminated intra-vascular coagulation.
XX
CC   Such eye drops are without unpleasant irritation upon dropping but with
CC   satisfactory long-term storage stability. The present sequence is
CC   the human CPB-I (calcium/phospholipid binding) protein.
XX
SQ   Sequence 319 AA;

AAP80511 standard; protein; 320 AA.

Query Match   43.4%; Score 1451.5; DB 23; Length 319;
Best Match
Best Local Similarity   91.5%; Pred. No. 2e-100;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

Qy   17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRD 76
         |||||||| ::|| :|||||:|||||||||||::|||||||||||||||||:::|||||
Db   4 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 63

Qy   77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 136
         :::|:|:|||||||||:|||||||||||||||||| ||:|||||||||:|||||||||||
Db   64 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 123

Qy 137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 196
         |||:||||||||:||||||||||||||||:|||||||| ||||| ||:||:|||||||||
Db 124 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVLLLQANRDPDAGIDEAQVEQDAQALFQAGE 183

Qy 197 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 256
         ||||||||||||||||||||||||:||||||||||||||||||||||||:|||||||||
Db 184 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 243

Qy 257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 316
         ||||||||||||||||||||||||||||:||||||||||||||||||||:|||||||||||
Db 244 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFAISLYSMIKGDT 303

Qy 317 SGDYKKALLLLCGGEDD 333
         |||||||||||| ||||
Db 304 SGDYKKALLLLC-GEDD 319

```
PS   Disclosure; Page ?; ???; English.
XX
CC   This polypeptide exhibits strong anticoagulant activities and is useful
CC   for the treatment and prevention of e.g. thrombosis or disseminated
CC   intravascular coagulation in the brain, heart and peripheral blood
CC   vessels, such as cerebral and myocardial infarction. It has no
CC   antigenicity against man and can be produced in large amts. using
CC   recombinant methods.
CC   (Updated on 10-MAR-2003 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PF field.)
CC   (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence    320 AA;

Query Match         43.4%;  Score 1451.5;  DB 9;  Length 320;
Best Local Similarity   91.5%;  Pred. No 2e-100;
Matches  290;  Conservative  12;  Mismatches  14;  Indels   1;  Gaps   1;

Qy     17 LRGTIVTDFSGFDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRD 76
          ||||||||| |||:|||||:||||||||||||||:||.||||:|||||||:|::||||||||
Db      5 LRGTIVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 64

Qy     77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 136
          |::|:|||||||||||||||||||||||||||||||.||||||:|||||:||||||||||:
Db     65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTELIASRTPEELRA 124

Qy    137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQVALFQAGE 196
          |||.||||||..|||||||||||||||||||||||||||||.||:||||.|||:||||||
Db    125 IKQVEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy    197 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 256
          ||||||||||||:|||||||||||:|||||||||||||||||:|||||||||:|||||||
Db    185 LKWGTDEEKFITIFGTRSVSHLRKVFDKYMTISGFQIEETIIDRETSGNLEQLLAVVKSI 244

Qy    257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 316
          ||||||||||||||||||||||||||||.|||||||||||||||||||||||||||||||
Db    245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy    317 SGDYKKALLLCGGEDD 333
          |||||||||||.||||
Db    305 SGDYKKALLLC-GEDD 320

Search completed: December 12, 2003, 14:50:03
Job time : 53.1387 secs
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OM protein - protein search, using sw model

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GenCore version 5.1.6

Run on: December 12, 2003, 14:50:08 ; Search time 37.219 Seconds
(without alignments)
3340.943 Million cell updates/sec

Title: PCT-US03-24332-6
Perfect score: 3343
Sequence: 1 MDYKDDDDKLAANXALRGT.........GDTSGDYKKALLLCGGEDD 669

Scoring table: BLOSUM62
                Gapop 10.0 , Gapext 0.5

Post-processing: Minimum Match 0%
                 Maximum Match 100%

Searched: 684280 seqs, 18598659 residues
                Listing first 45 summaries

Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0
Maximum DB seq length: 200000000

Database :   Published Applications_AA.*
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                17: /cgn2_6/ptodata/2/pubpaa/US60_NEW_PUB.pep:*
                18: /cgn2_6/ptodata/2/pubpaa/US60_PUBCOMB.pep:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	3337	99.8	669	12	US-10-080-370-6	Sequence 6, Appli
2	1593	47.7	319	12	US-10-080-370-3	Sequence 3, Appli
3	1451.5	43.4	320	14	US-10-007-761-72	Sequence 72, Appl
4	1442.5	43.1	327	10	US-09-970-969-2	Sequence 2, Appli
5	1442.5	43.1	327	10	US-09-970-969-4	Sequence 4, Appli
6	1442.5	43.1	327	10	US-09-970-969-6	Sequence 6, Appli
7	921	27.6	321	15	US-10-097-340-10	Sequence 10, Appl
8	921	27.6	324	10	US-09-925-301-1062	Sequence 1062, Ap
9	887	26.5	208	9	US-09-925-302-731	Sequence 731, App
10	822.5	24.6	327	12	US-10-236-031B-18	Sequence 18, App
11	790	23.6	324	12	US-10-316-253-262	Sequence 262, App
12	785	23.5	323	15	US-10-205-823-34	Sequence 34, Appl
13	763.5	22.8	485	10	US-09-925-300-1664	Sequence 1664, Ap
14	695.5	20.8	339	10	US-09-974-298-91	Sequence 91, Appl
15	695.5	20.8	339	15	US-10-097-340-6	Sequence 6, Appli
16	695.5	20.8	339	15	US-10-097-340-8	Sequence 8, Appli
17	678	20.3	327	9	US-09-764-853-615	Sequence 615, App
18	675	20.2	332	11	US-09-764-881-110	Sequence 110, App
19	647.5	19.4	319	15	US-10-304-287-2	Sequence 2, Appli
20	632	18.9	373	9	US-09-925-301-888	Sequence 888, App
21	628	18.8	346	10	US-09-919-172-39	Sequence 39, Appl
22	628	18.8	346	10	US-09-974-298-93	Sequence 93, Appl
23	625	18.7	346	12	US-10-316-253-300	Sequence 300, App
24	381.5	11.4	289	10	US-09-925-301-897	Sequence 897, App
25	376.5	11.3	316	15	US-10-219-220-260	Sequence 260, App
26	374.5	11.2	316	15	US-10-219-220-62	Sequence 62, Appl
27	316	9.5	374	15	US-09-925-297-479	Sequence 479, App
28	237.5	7.1	239	15	US-10-219-220-65	Sequence 65, Appl
29	223.5	6.7	319	11	US-10-259-165-56	Sequence 56, Appl
30	223.5	6.7	319	12	US-10-259-165-402	Sequence 402, App
31	222	6.6	336	12	US-10-259-165-290	Sequence 290, App
32	221	6.6	184	9	US-10-259-220-66	Sequence 66, Appl
33	147.5	4.4	701	9	US-09-815-242-13002	Sequence 13002, A
34	141	4.2	82	9	US-09-925-301-1467	Sequence 1467, Ap
35	131	3.9	617	9	US-09-815-242-5762	Sequence 5762, Ap
36	130.5	3.9	1786	10	US-09-742-096-3	Sequence 3, Appli
37	129	3.9	872	14	US-10-047-266-38	Sequence 38, Appl
38	127.5	3.8	1004	12	US-10-738-626-5676	Sequence 5676, Ap
39	127.5	3.8	1007	11	US-09-957-005-9	Sequence 9, Appli
40	127	3.8	2099	15	US-10-128-714-3290	Sequence 3290, Ap
41	127	3.8	2405	15	US-10-128-714-8290	Sequence 8290, Ap
42	125.5	3.8	457	9	US-09-815-242-12670	Sequence 12670, A
43	123	3.7	810	12	US-09-769-744A-74	Sequence 74, Appl
44	122.5	3.7	862	15	US-10-177-293-391	Sequence 391, App
45	122	3.6	46	12	US-10-029-386-30160	Sequence 30160, A

ALIGNMENTS

RESULT 1
US-10-080-370-6
Sequence 6, Application US/10080370
Publication No. US20030166532A1
GENERAL INFORMATION:
APPLICANT: Allison, Anthony
TITLE OF INVENTION: Modified Annexin Proteins and Methods for Preventing Thrombosi
FILE REFERENCE: SURR.90
CURRENT APPLICATION NUMBER: US/10/080,370
CURRENT FILING DATE: 2002-02-21
PRIOR APPLICATION NUMBER: 60/270,402
PRIOR FILING DATE: 2001-02-21
PRIOR APPLICATION NUMBER: 60/332,582
PRIOR FILING DATE: 2001-11-21
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin version 3.1
SEQ ID NO 6
LENGTH: 669
TYPE: PRT
ORGANISM: Artificial sequence
FEATURE:
NAME/KEY: misc_feature
LOCATION: (15)..(15)
OTHER INFORMATION: The 'Xaa' at location 15 stands for Ser.
NAME/KEY: misc_feature
LOCATION: (334)..(334)
OTHER INFORMATION: The 'Xaa' at location 334 stands for Lys, Asn, Arg, Ser, Thr,
OTHER INFORMATION: , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop cod
NAME/KEY: misc_feature
LOCATION: (351)..(351)
OTHER INFORMATION: The 'Xaa' at location 351 stands for Lys, Asn, Arg, Ser, Thr,
OTHER INFORMATION: , Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop cod
NAME/KEY: misc_feature
LOCATION: (45)..(45)
OTHER INFORMATION: Tyr, Trp, Cys, or Phe.
OTHER INFORMATION: modified annexin gene
NAME/KEY: misc_feature
LOCATION: (45)..(45)
OTHER INFORMATION: n = a, c, g, or t

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; NAME/KEY: misc feature
;   LOCATION: (1000)..(1002)
;   OTHER INFORMATION: n = a, c, g, or t
; NAME/KEY: misc feature
;   LOCATION: (1051)..(1053)
;   OTHER INFORMATION: n = a, c, g, or t
US-10-080-370-6

Query Match     99.8%;   Score 3337;   DB 12;   Length 669;
Best Local Similarity   100.0%;   Pred. No. 2.9e-268;
Matches  669;   Conservative   0;   Mismatches   0;   Indels   0;   Gaps   0;

Qy    1  MDYKDDDDKLAAANXALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNA   60
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1  MDYKDDDDKLAAANXALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNA   60

Qy   61  QRQQIAEEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEK  120
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61  QRQQIAEEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEK  120

Qy  121  VLTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAID  180
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  121  VLTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAID  180

Qy  181  DAQVELDAQALFQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRE  240
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  181  DAQVELDAQALFQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRE  240

Qy  241  TSGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF  300
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  241  TSGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF  300

Qy  301  RKNFATSLYSMIKGDTSGDYKKALLLLCGGEDXRSRSGLEVLFQGPGSTXALRGTVTDF   360
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  301  RKNFATSLYSMIKGDTSGDYKKALLLLCGGEDXRSRSGLEVLFQGPGSTXALRGTVTDF   360

Qy  361  SGFPGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDLVNDMKSE  420
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  361  SGFPGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDLVNDMKSE  420

Qy  421  LTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEE  480
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  421  LTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQAYEEE  480

Qy  481  YGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELKWGTDEE  540
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Db  481  YGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELKWGTDEE  540

Qy  541  KFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIPAYLA  600
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Db  541  KFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRSIPAYLA  600

Qy  601  ETLIYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSGDYKKAL  660
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Db  601  ETLIYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSGDYKKAL  660

Qy  661  LILCGGEDD  669
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Db  661  LILCGGEDD  669
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RESULT 2
US-10-080-370-3
;  Sequence 3, Application US/10080370
;  Publication No. US20030165332A1
;  GENERAL INFORMATION:
;  APPLICANT: Allison, Anthony
;  TITLE OF INVENTION: Modified Annexin Proteins and Methods for Preventing Thrombosis
;  FILE REFERENCE: SURR.90
;  CURRENT APPLICATION NUMBER: US/10/080,370
;  CURRENT FILING DATE: 2002-02-21
;  PRIOR APPLICATION NUMBER: 60/270,402
;  PRIOR FILING DATE: 2001-02-21
;  PRIOR APPLICATION NUMBER: 60/332,582
;  PRIOR FILING DATE: 2001-11-21
;  NUMBER OF SEQ ID NOS: 9
;  SOFTWARE: Patentin version 3.1
;
; SEQ ID NO 3
;  LENGTH: 319
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-10-080-370-3

Query Match     47.7%;   Score 1593;   DB 12;   Length 319;
Best Local Similarity   100.0%;   Pred. No. 4.4e-124;
Matches  318;   Conservative   0;   Mismatches   0;   Indels   0;   Gaps   0;

Qy   16  ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR   75
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    2  ALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR   61

Qy   76  DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR  135
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   62  DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR  121

Qy  136  AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG  195
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  122  AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG  181

Qy  196  ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRE  255
         ||||||||||||||||||||||||||||||||||||||||||||
Db  182  ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRE  241

Qy  256  IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF  315
         ||||||||||||||||||||||||||||||||||||||||||||
Db  242  IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEF  301

Qy  316  TSGDYKKALLLLCGGEDD  333
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Db  302  TSGDYKKALLLLCGGEDD  319
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RESULT 3
US-10-007-761-72
;  Sequence 72, Application US/10007761
;  Publication No. US20020150984A1
;  GENERAL INFORMATION:
;  APPLICANT: Mochly-Rosen, Daria
;  TITLE OF INVENTION: Peptides for Activation and Inhibition
;  TITLE OF INVENTION: of delta-PKC
;  FILE REFERENCE: S8600-8208.US00
;  CURRENT APPLICATION NUMBER: US/10/007,761
;  CURRENT FILING DATE: 2001-11-09
;  PRIOR APPLICATION NUMBER: US 60/262,060
;  PRIOR FILING DATE: 2001-01-18
;  NUMBER OF SEQ ID NOS: 72
;  SOFTWARE: FastSEQ for Windows Version 4.0
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; SEQ ID NO 72
;  LENGTH: 320
;  TYPE: PRT
;  ORGANISM: Homo sapiens
US-10-007-761-72

Query Match     43.4%;   Score 1451.5;   DB 14;   Length 320;
Best Local Similarity   91.5%;   Pred. No. 2.4e-112;
Matches  290;   Conservative  12;   Mismatches  14;   Indels   0;   Gaps   1;

Qy   17  LRGTVTDFSGFPGPGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD   76
         ||||||||:|||:|:||||||:||||||||||:|||:::|||||||||||||:::|||||||
Db    1  LRGTVTDFPGFDGRADAETLRKAMKGLGTDEKVLTEIIASRTPEELRAQEISAAFKTLFGRD   64

Qy   77  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEEKVLTEIIASRTPEELRA  136
         |||||:||||||||||||||||||||||||||||||||||||:||||||||||||||||||
Db   65  LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTNEKVLTEIIASRTPEELRA   124

Qy  137  IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  196
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RESULT 4
US-09-970-969-2
Sequence 2, Application US/09970969
Patent No. US20020103341A1
GENERAL INFORMATION:
  APPLICANT: Tait, Jonathan F.
  APPLICANT: Brown, David S.
  TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites
  FILE REFERENCE: uofw-1-11841
  CURRENT APPLICATION NUMBER: US/09/970,969
  CURRENT FILING DATE: 2001-10-03
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: PatentIn Ver. 2.0
  SEQ ID NO 2
    LENGTH: 327
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-970-969-2

Query Match   43.1%;   Score 1442.5; DB 10; Length 327;
Best Local Similarity 91.2%;   Pred. No. 1.4e-111;
Matches 289; Conservative 12; Mismatches 15; Indels   1; Gaps   1;

Qy   17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQEISAAFKTLFGRD   76
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   71

Qy   77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA   136
           |:||:|||||||||||||||||||:||||||||:|||||||||||||||||||||||||||
Db   72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA   131

Qy   137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE   196
           ||||:|||||||||||:||||||||||||||||||||:|||||||||||||||||||||||
Db   132 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDDAGIDEAQVEQDAQALFQAGE   191

Qy   197 LKWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLLAVVKSI   256
           ||||||||||||||:||||||||||||||:|||||:||||||||||||||||||||||||||
Db   192 LKWGTDEEKFITIFGTRSVSHLRKVFDKXMTISGFQIEETIDRETSGNLEQLLLAVVKSI   251

Qy   257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDT   316
           |||||||||||||||||||||||||:|||||||||||:||||||||||||||||||||||||
Db   252 RSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLENIRKEFRKNPATSLYSMIKGDT   311

Qy   317 SGDYKKALLLLCGGEDD   333
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Db   312 SGDYKKALLLL-SGEDD   327

RESULT 5
US-09-970-969-4
Sequence 4, Application US/09970969
Patent No. US20020103341A1
GENERAL INFORMATION:
  APPLICANT: Tait, Jonathan F.
  APPLICANT: Brown, David S.
  TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites
  FILE REFERENCE: uofw-1-11841
  CURRENT APPLICATION NUMBER: US/09/970,969
  CURRENT FILING DATE: 2001-10-03
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: PatentIn Ver. 2.0
  SEQ ID NO 4
    LENGTH: 327
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-970-969-4

Query Match   43.1%;   Score 1442.5; DB 10; Length 327;
Best Local Similarity 91.2%;   Pred. No. 1.4e-111;
Matches 289; Conservative 12; Mismatches 15; Indels   1; Gaps   1;

Qy   17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQEISAAFKTLFGRD   76
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   71

Qy   77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA   136
           |:||:|||||||||||||||||||:||||||||:|||||||||||||||||||||||||||
Db   72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA   131

Qy   137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE   196
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Db   132 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDDAGIDEAQVEQDAQALFQAGE   191

RESULT 6
US-09-970-969-6
Sequence 6, Application US/09970969
Patent No. US20020103341A1
GENERAL INFORMATION:
  APPLICANT: Tait, Jonathan F.
  APPLICANT: Brown, David S.
  TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites
  FILE REFERENCE: uofw-1-11841
  CURRENT APPLICATION NUMBER: US/09/970,969
  CURRENT FILING DATE: 2001-10-03
  NUMBER OF SEQ ID NOS: 6
  SOFTWARE: PatentIn Ver. 2.0
  SEQ ID NO 6
    LENGTH: 327
    TYPE: PRT
    ORGANISM: Homo sapiens
US-09-970-969-6

Query Match   43.1%;   Score 1442.5; DB 10; Length 327;
Best Local Similarity 91.2%;   Pred. No. 1.4e-111;
Matches 289; Conservative 12; Mismatches 15; Indels   1; Gaps   1;

Qy   17 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQEISAAFKTLFGRD   76
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Db   12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   71

Qy   77 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA   136
           |:||:|||||||||||||||||||:||||||||:|||||||||||||||||||||||||||
Db   72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA   131

Qy   137 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE   196
           ||||:|||||||||||:||||||||||||||||||||:|||||||||||||||||||||||
Db   132 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDDAGIDEAQVEQDAQALFQAGE   191

Qy   197 LKWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLLAVVKSI   256
           ||||||||||||||:||||||||||||||:|||||:||||||||||||||||||||||||||
Db   192 LKWGTDEEKFITIFGTRSVSHLRKVFDKXMTISGFQIEETIDRETSGNLEQLLLAVVKSI   251

Qy   257 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDT   316
           |||||||||||||||||||||||||:|||||||||||:||||||||||||||||||||||||
Db   252 RSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLENIRKEFRKNPATSLYSMIKGDT   311

Qy   317 SGDYKKALLLLCGGEDD   333
           |||||||||||| ||||
Db   312 SGDYKKALLLL-SGEDD   327

```
Qy  197 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 256
        ||||||||||||| ||||||||||.|||||||||||||||||||||||| .||.||||||
Db  192 LKWGTDEEKFITILPGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 251

Qy  257 RSIPAYLAETLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 316
        ||||||||||||||||||||||||||||.|||||||||||||||||||||||||||||||
Db  252 RSIPAYLAETLYYAMKGAGTDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 311

Qy  317 SGDYKKALILLCGGEDD 333
        |||||||||||:.||||
Db  312 SGDYKKALILL-SGEDD 327
```

RESULT 7
US-10-097-340-10
; Sequence 10, Application No. US10097340
; Publication No. US20030087250A1
; GENERAL INFORMATION:
; APPLICANT: John MONAHAN
; APPLICANT: Manjula GANNAVARAPU
; APPLICANT: Sebastian HOERSCH
; APPLICANT: Shubhangi KAMATKAR
; APPLICANT: Steve G. KOVATS
; APPLICANT: Rachel E. MEYERS
; APPLICANT: Michael MORRISEY
; APPLICANT: Peter OLANDT
; APPLICANT: Ami SEN
; APPLICANT: Peter VEIBY
; APPLICANT: Gordon B. MILLS
; APPLICANT: Robert C. BAST, Jr.
; APPLICANT: Karen LU
; APPLICANT: Rosemarie SCHMANDT
; APPLICANT: Xumei ZHAO
; APPLICANT: Karen GLATT
; TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
; TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
; FILE REFERENCE: MRI-030
; CURRENT APPLICATION NUMBER: US/10/097,340
; CURRENT FILING DATE: 2002-03-14
; PRIOR APPLICATION NUMBER: 60/276,025
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/325,149
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/276,026
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/324,967
; PRIOR FILING DATE: 2001/09/26
; PRIOR APPLICATION NUMBER: 60/311,732
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: 60/325,102
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/323,580
; PRIOR FILING DATE: 2001-09-19
; NUMBER OF SEQ ID NOS: 363
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 321
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-097-340-10

Query Match   27.6%; Score 921; DB 15; Length 321;
Best Local Similarity   57.3%; Pred. No. 2.4e-68;
Matches 180; Conservative 56; Mismatches 78; Indels 0; Gaps 0;

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Qy   19 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEFKTLFGRDLV 78
Db    8 GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRTAYKSIGRDLI 67

Qy   79 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 138
Db   68 DDIKSELSGNFEQIVGMMTPVLYDVQELRRAMKGAGTDEGCLIEIIASRTPEIRRIS 127
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Qy  139 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQAGELK 198
Db  128 QTYQQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDLYEAGEKK 187

Qy  199 WGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRS 258
Db  188 WGTDEVKFLTVLCSRRNHLLHVFDEYKRISGKDIEQSIKSETSGSFEDALLAIVKCMRN 247

Qy  259 IPAYLAETLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSG 318
Db  248 KSAYFAEKLYKSMKGLGTDDNTLIRWMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG 307

Qy  319 DYKKALILLCGGEDD 332
Db  308 DYRKVLLVLCGGGDD 321
```

RESULT 8
US-09-925-301-1062
; Sequence 1062, Application US/09925301
; Patent No. US2002052308A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA106
; CURRENT APPLICATION NUMBER: US/09/925,301
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/05882
; PRIOR FILING DATE: 2000-03-08
; PRIOR APPLICATION NUMBER: 60/124,270
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 1694
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 1062
; LENGTH: 324
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-925-301-1062

Query Match   27.6%; Score 921; DB 9; Length 324;
Best Local Similarity   57.3%; Pred. No. 2.5e-68;
Matches 180; Conservative 56; Mismatches 78; Indels 0; Gaps 0;

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Qy   19 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEFKTLFGRDLV 78
Db   11 GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRTAYKSIGRDLI 70

Qy   79 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 138
Db   71 DDLKSELSGNFEQVIVGMMTPVLYDVQELRRAMKGAGTDEGCLIEIIASRTPEIRRIS 130

Qy  139 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELK 198
Db  131 QTYQQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDLYEAGEKK 190

Qy  199 WGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRS 258
Db  191 WGTDEVKFLTVLCSRRNHLLHVFDEYKRISGKDIEQSIKSETSGSFEDALLAIVKCMRN 250

Qy  259 IPAYLAETLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSG 318
Db  251 KSAYFAEKLYKSMKGLGTDDNTLIRWMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG 310

Qy  319 DYKKALILLCGGGDD 332
Db  311 DYRKVLLVLCGGGDD 324
```

RESULT 9
US-09-925-302-731
; Sequence 731, Application US/09925302
; Patent No. US20020044941A1

```
;   GENERAL INFORMATION:
;   APPLICANT: Rosen et al.
;   TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
;   FILE REFERENCE: PA104
;   CURRENT APPLICATION NUMBER: US/09/925,302
;   CURRENT FILING DATE: 2001-08-10
;   PRIOR APPLICATION NUMBER: PCT/US00/05918
;   PRIOR FILING DATE: 2000-03-08
;   PRIOR APPLICATION NUMBER: 60/124,270
;   PRIOR FILING DATE: 1999-03-12
;   NUMBER OF SEQ ID NOS: 896
;   SOFTWARE: Patentin Ver. 2.0
;   SEQ ID NO 731
;   LENGTH: 208
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-925-302-731

Query Match             26.6%;   Score 887;  DB 9;  Length 208;
Best Local Similarity   85.9%;   Pred. No. 8.6e-66;
Matches   177;  Conservative  11;  Mismatches  18;  Indels   0;  Gaps   0;

Qy          10 LAAANXALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQOIAEEF 69
                :||||||||||||||||||||||||||||||||||||||||||||||||||:::|||
Db           1 VVAMAQVLRGTVTDFDGFDERADAETLRKAMKGLGTDEBSILTLLTSRSNAAQROEISAAF 60

Qy          70 KTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASR 129
               |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 KTLFGRDLLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASR 120

Qy         130 TPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQ 189
               ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 TPEELRAIKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQ 180

Qy         190 ALFQAGELKWGTDEEKFITILGTRSV 215
               ||||||||||||||||||||||||||
Db         181 ALFQAGELKWGTDEEKFITIFGTRSV 206
```

```
RESULT 10
US-10-236-031B-18
;   Sequence 18, Application US/10236031B
;   Publication No. US20030219760A1
;   GENERAL INFORMATION:
;   APPLICANT: Gordon, Gavin J.
;   APPLICANT: Jensen, Roderick V.
;   APPLICANT: Gullans, Steven R.
;   APPLICANT: Bueno, Raphael
;   TITLE OF INVENTION: Diagnostic and Prognostic Tests
;   FILE REFERENCE: B00801/70265 (JRV/JAV)
;   CURRENT APPLICATION NUMBER: US/10/236,031B
;   CURRENT FILING DATE: 2002-09-05
;   PRIOR APPLICATION NUMBER: US 60/317,389
;   PRIOR FILING DATE: 2001-09-05
;   PRIOR APPLICATION NUMBER: US 60/407,431
;   PRIOR FILING DATE: 2002-08-30
;   NUMBER OF SEQ ID NOS: 102
;   SOFTWARE: Patentin version 3.1
;   SEQ ID NO 18
;   LENGTH: 327
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-10-236-031B-18

Query Match             24.6%;   Score 822.5;  DB 12;  Length 327;
Best Local Similarity   56.9%;   Pred. No. 3.7e-60;
Matches   178;  Conservative  44;  Mismatches  90;  Indels   1;  Gaps   1;

Qy          20 TVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQOIAEEFKTLFGRDLVN 79
               |:||:|:|:|||:||:||||:::|:||||||||||||||||||||||||||||||||
Db          14 TVRSSSHFNPDDAEYLYKAMKGIGTNEQAIIDVLTKRSNTQRQQIAKSFKAQFGKDLTE 73

Qy          80 DMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQ 139
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```
Db          74 TLKSELSGKFERLIVALMYPPYRYEAKELHDAVKGLGTKEGVLIEILASRTKNQLREIMK 133
               ||||||::|||:|||||| ::||    |:|    |||||| ::|| ||||||  |::|
Qy         140 AYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDP-DTAIDDAQVELDAQALFQAGELK 198
               ||||||::|||||||||||||||||||||||:||| |:|:|||| :|||||||||||
Db         134 AYEEDYGSSLEEDIQADTSGYLERLIVCLLQGSRDVSSFVDPALALQDAQDLYAAGEKI 193
Qy         199 WGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENILLAVVKSIRS 258
               |||||| |||||||:|||:|||||::|::||||||||||||||   :|| |:|||:
Db         194 RGTDEMKFITILCTRSATHLLRVFEEYEKIANKSIEDSIKSETHGSLEEAMLTVVKCTQN 253
Qy         259 IPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFATSLYSMIKGDTSG 318
               :||||||||||::|||:|||||||||||||||:|||||||||||:|:||::|:||:||||
Db         254 LHSYFAERLIYAMKGAGTRDGTLIRNIVSRSEIDLNLICHFRKXMYGKTLSSMIMEDTSG 313
Qy         319 DYKKALLLLCGGE 331
               |||||||:|||
Db         314 DYKNALLSIVGSD 326
```

```
RESULT 11
US-10-316-253-262
;   Sequence 262, Application US/10316253
;   Publication No. US20030162706A1
;   GENERAL INFORMATION:
;   APPLICANT: The Procter & Gamble Company
;   APPLICANT: Peters, Kevin
;   APPLICANT: Thompson, Larry
;   APPLICANT: Wang, Feng
;   APPLICANT: Greis, Kenneth
;   TITLE OF INVENTION: Angiogenesis Modulating Proteins
;   FILE REFERENCE: 8865M
;   CURRENT APPLICATION NUMBER: US/10/316,253
;   CURRENT FILING DATE: 2002-12-10
;   PRIOR APPLICATION NUMBER: US 60/355,295
;   PRIOR FILING DATE: 2002-02-08
;   NUMBER OF SEQ ID NOS: 308
;   SOFTWARE: Patentin version 3.1
;   SEQ ID NO 262
;   LENGTH: 324
;   TYPE: PRT
;   ORGANISM: Rattus norvegicus
US-10-316-253-262

Query Match             23.6%;   Score 790;  DB 12;  Length 324;
Best Local Similarity   47.9%;   Pred. No. 1.8e-57;
Matches   156;  Conservative  65;  Mismatches  99;  Indels   6;  Gaps   1;

Qy         343 LFQGPGSTXALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQOIA 402
                :|    |:||||||||||:|||:|||:|||||||||||||||||||||||||||:||||
Db           5 LWVGP-----RGTINNYGGFNPSVDAFAIRKAIKGIGTDEKTLINILTERSNAQRQLIV 58
Qy         403 EEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEII 462
               :||:||||||||||:||||::|||||||||||||||:||::|||||||||||||||||
Db          59 XHIQEAYEQALKADLKGDLSGHFEHVMVALITAPAVFDAKQLKKSMRGMGTDEDTLIEIL 118
Qy         463 ASRTEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVEL 522
               |:|||||||:|||::|||||:||||||||||:|||||||||||||||||||:|||:
Db         119 TTRTSROMKEISQAYYTAVKCNLRDDISSETSGDFRKALLTLADGGRDESLRVDEHLAKK 178
Qy         523 DAQALFQAGELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLE 582
               |||||||||||||||||||||||||:||||:|||||::|:|||||||||||:|:|:||
Db         179 DAQTLYDAGEKKWGTDEDKFTEILCLRSFPQLKLTFDEYRNISQKDIEDSIKGELSGHFE 238
Qy         583 NLLLAVVKSIRSRIPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFAT 642
               |||||||:|:||:: |:||:|||::|||:|||||||||||||||||||||||||||:|:
Db         239 DLLLAVVRCTRNTPAFLAGRLHQALKGAGTDEFTLNRIMVSRSEIDLLDIRREFKKHYGC 298
Qy         643 SLYSMIKGDTSGDYKKALLLLCGGED 668
               ||||:||||:|||||||||||:||:
Db         299 SLYSAIQSDTSGDYRTVLLKICGGDD 324
```

RESULT 12
US-10-205-823-34
; Sequence 34, Application US/10205823
; Publication No. US20030108963A1
; GENERAL INFORMATION:
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Endege, Wilson O.
; APPLICANT: Gannavarapu, Manjula
; APPLICANT: Gorbatcheva, Bella
; APPLICANT: Hoersch, Sebastian
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Wonsey, Angela M.
; APPLICANT: Glatt, Karen
; APPLICANT: Zhao, Xumei
; APPLICANT: Anderson, Dustin
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF PROSTATE CANCER
; FILE REFERENCE: MRI-044
; CURRENT APPLICATION NUMBER: US/10/205,823
; CURRENT FILING DATE: 2002-07-25
; PRIOR APPLICATION NUMBER: 60/307,982
; PRIOR FILING DATE: 2001-07-25
; PRIOR APPLICATION NUMBER: 60/314,356
; PRIOR FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/325,020
; PRIOR FILING DATE: 2001-09-25
; PRIOR APPLICATION NUMBER: 60/341,746
; PRIOR FILING DATE: 2001-12-12
; PRIOR APPLICATION NUMBER: 60/362,158
; PRIOR FILING DATE: 2002-03-05
; NUMBER OF SEQ ID NOS: 455
; SEQ ID NO 34
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-205-823-34

SOFTWARE: FastSEQ for Windows Version 4.0

Query Match   23.5%;   Score 785;   DB 15;   Length 323;
Best Local Similarity   48.3%;   Pred. No. 4.6e-57;
Matches 152; Conservative   68; Mismatches   95; Indels   0; Gaps   0;

Qy   18 RGTVIDFSGFGPGRADAEVLRKAMKGJGTDEDSILNLLTARSNAQRQIABEFKTLFGRDL   77
                |||| || | :|:| |||| |:|||:|| ||| |||||: ||| |||||:
Db   9 RGTVRDYPDFSPSVDAEAIQKAIRGIGTDEKMLISILTERSNAQRQLIVKEYQAAYGKEL 68

Qy   78 VNDMKSELTGKFEKLIVALMKPSRLIYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 137
                |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   9 RGTVRDYPDFSPSVDAEAIQKAIRGIGTDEKMLISILTERSNAQRQLIVKEYQAAYGKEL 68

Qy   78 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVLLQANRDPTAIDDAQVELDAQALFQAGEL   197
                |:| || | ||::|||||:| ||| ::| | | |||: |:||| |||
Db   69 KDDLKGDLSGHFEHLMVALVTPPAVFDAKQLKKSMKGAGTNEDALIEILTTRISRQVKDI 128

Qy   138 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVLLQANRDPTAIDDAQVELDAQALFQAGEL   197
                |:| || | ||::|||||:| ||| ::| | | |||: |:||| |||
Db   129 SQAYYTVYKKSLGDDISSETSGDPRKALLTLADGRRDESLKVDEHLARKQADAQILYKAGEN 188

Qy   198 KWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 257
                |||||:||| ||||||||||||||||||||||||||||||||||||||||||||||||||
Db   189 RWGTDEDKFITILCLRSFPQLKLTFDEYNISQKDIVDSIKGELSGHFEDLLLAIVNCVR 248

Qy   258 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 317
                :|| :: || ||:|| || |:|:|||||||:||||||||||||||||||||||||
Db   249 NTPAFLAERLHRALKGIGTDEFTLNRIMVSRSEIDLLDIRTEFKKHYGYSLYSAIKSDTS 308

Qy   318 GDYKRALLLLCGGED 332
                ||| ||||||| |||
Db   309 GDYEITLLKICGGDD 323

RESULT 13
US-09-925-300-1664
; Sequence 1664, Application US/09925300
; Patent No. US20021516891A1

Query Match   20.8%;   Score 695.5;   DB 10;   Length 339;
Best Local Similarity   45.4%;   Pred. No. 1.3e-49;

───

; GENERAL INFORMATION:
; APPLICANT: Craig Rosen,
; APPLICANT: Steve Ruben
; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA101
; CURRENT APPLICATION NUMBER: US/09/925,300
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/05988
; PRIOR FILING DATE: 2000-03-08
; PRIOR APPLICATION NUMBER: 60/124,270
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 1890
; SEQ ID NO 1664
; LENGTH: 485
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-925-300-1664

SOFTWARE: PatentIn Ver. 2.0

Query Match   22.8%;   Score 763.5;   DB 10;   Length 485;
Best Local Similarity   45.6%;   Pred. No. 5e-55;
Matches 154; Conservative   69; Mismatches 114; Indels   1; Gaps   1;

Qy   329 GGEDDXRSRSGLEVLFQGPGS-TXALRGTVTDFSGFGPGRADAEVLRKAMKGJGTDEDSIL 387
                | ::| :   ::| | :| ||||| || | ||| |||||||||||||| |||||
Db   147 GGQMPSQYPGQGQPTYPSQPATVTQVTQGTIRPAANFDAIRDAEILRKAMKGFGFGTDEQAIV 206

Qy   388 NLLTARSNAQRQIAEEFKTLFGRDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHA 447
                ||| |||||||| :|||| ||||| |||||||||||||||||||||||||:||||||
Db   207 DVVANRSNDQRQKIKAAFKTSYGKDLIKDLKSELSGNMEELLLALFMPPTVYDAWSLRKA 266

Qy   448 KLGAGTDEKVLTEIIASRTPEELRAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVLLQA 507
                |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   267 MQGAGTQERVLIEILCTRINQEIREIVRCYQSEFGRDLEKDIRSDISGHFERLLVSMCQG 326

Qy   508 NRDDPTAIDDAQVELDAQALFQAGELKWGTDEEKFIILGTRSVSHLRRVFDKYMIISGF 567
                || | ||: |:||| ||||||| ||||::|||||||||||||||||||||||:|
Db   327 NRDENQSINHQMAQEDAQRLYQAGEGRLGTDESCFNMILATRSFPQLRATMEAYSRMANR 386

Qy   568 QIEETIDRETSGNLENLLLAVVKSIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEI 627
                :|||||||||||||||||||||||||| |:||| ||||||||||| || |:|:||||||
Db   387 DLLSSVSREFSGVYESGIKTILQCALNPAFFAERLYYAMKGAGTDDSTLVRIVVTRSEI 446

Qy   628 DLFNIRKEFRKNFATSLYSMIKGDTSGDYKKALLLLCG 665
                ||||||||||||||||||||||||||||| |||||| |
Db   447 DLVQIKQMFAQMYQKTLGTMIAGDTSGDYRRLLIAIVG 484

RESULT 14
US-09-974-298-91
; Sequence 91, Application US/09974298
; Patent No. US20020156263A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Huei-Mei
; TITLE OF INVENTION: GENES EXPRESSED IN BREAST CANCER
; FILE REFERENCE: PA-0037 P
; CURRENT APPLICATION NUMBER: US/09/974,298
; CURRENT FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: 60/238,331
; PRIOR FILING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 194
; SEQ ID NO 91
; LENGTH: 339
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No. US20020156263A1 1378745CD1
US-09-974-298-91

Query Match   20.8%;   Score 695.5;   DB 10;   Length 339;
Best Local Similarity   45.4%;   Pred. No. 1.3e-49;

Matches 143; Conservative 67; Mismatches 104; Indels 1; Gaps 1;

Qy	19 GTVTDFSGFPDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDLV 78
	`|:|| .:|.||||||||||| :|||||| :||||||.|:|:||:.|||||||||||||||`
Db	25 GSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNILTNRSNAQRQDIAFAYQRRTKKELA 84
Qy	79 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 138
	`||:|||| || :|| :|| :||| |.|| ||.|| ||||| |||||:|:|||:|||||||||`
Db	85 SALKSALSGHLETVILGLLKTPAQYDASELKASMKGLGTDEDSLIEIICSRTNQELQEIN 144
Qy	139 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPD-TAIDAQVELDAQALFQAGEL 197
	`:|||||||| |||||| :||||| :|||||||||::|| |||||||||||:||||||||`
Db	145 RVYKEMYKTDLEKDIISDTSGDFRKLMVALAKGRRAEDGSVIDYELIDQDARDLYDAGVK 204
Qy	198 KWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 257
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Db	205 RKGTDVPKWISIMTERSVPHLQKVFDRYKSYSPYDMLESTRKEVKGDLENAFLNLVQCIQ 264
Qy	258 SIPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 317
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Db	325 GDYQKALLYLCGGDD 339

RESULT 15

US-10-097-340-6

Sequence 6, Application US/10097340

Publication No. US20030087250A1

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APPLICANT:	Karen LU
APPLICANT:	Rosemarie SCHMANDT
APPLICANT:	Xumei ZHAO
APPLICANT:	Karen GLATT

TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer

FILE REFERENCE: MRI-030

CURRENT APPLICATION NUMBER: US/10/097,340

CURRENT FILING DATE: 2002-03-14

PRIOR APPLICATION NUMBER: 60/276,025
PRIOR FILING DATE: 2001-03-14
PRIOR APPLICATION NUMBER: 60/325,149
PRIOR FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 60/276,026
PRIOR FILING DATE: 2001-03-14
PRIOR APPLICATION NUMBER: 60/324,967
PRIOR FILING DATE: 2001/09/26
PRIOR APPLICATION NUMBER: 60/311,732
PRIOR FILING DATE: 2001-08-10
PRIOR APPLICATION NUMBER: 60/325,102
PRIOR FILING DATE: 2001-09-26
PRIOR APPLICATION NUMBER: 60/323,580
PRIOR FILING DATE: 2001-09-19

NUMBER OF SEQ ID NOS: 363

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 6

LENGTH: 339

TYPE: PRT

ORGANISM: Homo sapiens

US-10-097-340-6

Query Match	20.8%; Score 695.5; DB 15; Length 339;
Best Local Similarity	45.4%; Pred. No. 1.3e-49;
Matches 143;	Conservative 67; Mismatches 104; Indels 1; Gaps 1;

Qy	19 GTVTDFSGFPDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDLV 78
	`|:|| .:|.||||||||||| :|||||| :||||||.|:|:||:.|||||||||||||||`
Db	25 GSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNILTNRSNAQRQDIAFAYQRRTKKELA 84
Qy	79 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 138
	`||:|||| || :|| :|| :||| |.|| ||.|| ||||| |||||:|:|||:|||||||||`
Db	85 SALKSALSGHLETVILGLLKTPAQYDASELKASMKGLGTDEDSLIEIICSRTNQELQEIN 144
Qy	139 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPD-TAIDAQVELDAQALFQAGEL 197
	`:|||||||| |||||| :||||| :|||||||||::|| |||||||||||:||||||||`
Db	145 RVYKEMYKTDLEKDIISDTSGDFRKLMVALAKGRRAEDGSVIDYELIDQDARDLYDAGVK 204
Qy	198 KWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 257
	`|||||||:|||||||||||||| |:||||||||:|||||:||||:||.|||||||||||||`
Db	205 RKGTDVPKWISIMTERSVPHLQKVFDRYKSYSPYDMLESTRKEVKGDLENAFLNLVQCIQ 264
Qy	258 SIPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 317
	`:||:||| ||| |:|||||| |||.||| ||||||||:|||||||||||| :||||||||`
Db	265 NKPLYFADRLIYDSMKGKGTRDKVLIRIMVSRSEVDMLKIRSEFKRKYGKSLYYYIQQDTK 324
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Db	325 GDYQKALLYLCGGDD 339

Search completed: December 12, 2003, 14:54:31

Job time : 37.2419 secs

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OM protein - protein search, using sw model

                    Copyright (c) 1993 - 2003 Compugen Ltd.
                              GenCore version 5.1.6

Run on:      December 12, 2003, 14:43:27 ; Search time 24.8613 Seconds
                              (without alignments)
                              2036.647 Million cell updates/sec

Title:       PCT-US03-24332-3
Perfect score: 1598
Sequence:    1 MALRGTVTDFSGFDGRADAE.........GDTSGDYKKALLLCGGEDD 319

Scoring table: BLOSUM62
               Gapop 10.0 , Gapext 0.5

Searched:    1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters:      1107863

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

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        4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1598	100.0	319	24	ABP56248	Human annexin V pr
2	1593	99.7	669	24	ABP56249	Modified annexin p
3	1580	98.9	318	20	AAY13925	S65T GFP variant/h
4	1575	98.6	319	16	AAR76695	Rat annexin-V. Ra
5	1535	96.1	319	20	AAY13924	S65T GFP variant/h
6	1535	96.1	319	23	ABB57067	Mouse ischaemic co
7	1451.5	90.8	319	13	AAR26276	CPB-I. Homo sapie
8	1451.5	90.8	319	14	AAR41021	Calphobindin I (CP
9	1451.5	90.8	319	23	ABG32550	Human CPB-1 protei
10	1451.5	90.8	320	9	AAP80511	Placental coagulat
11	1451.5	90.8	320	10	AAP91953	Vascular anti-coag
12	1451.5	90.8	320	12	AAR13082	PAP-I. Homo sapie
13	1451.5	90.8	320	20	AAY13923	S65T GFP variant/h
14	1451.5	90.8	320	21	AAY84788	Amino acid sequenc
15	1451.5	90.8	320	23	ABG31220	Human annexin V, c
16	1448.5	90.6	320	10	AAP90053	Human annexin V, c
17	1448.5	90.6	600	21	AAY92930	anticoagulant P4
18	1447.5	90.6	320	21	AAP82317	Annexin V/urokinas
19	1446.5	90.5	319	13	AAP26180	PAP-I isolated fro
20	1445.5	90.5	320	9	AAP82042	CPB-1. Homo sapie
21	1445.5	90.5	320	9	AAP80714	Sequence vascular
22	1445.5	90.5	320	12	AAR11910	Sequence vascular
23	1442.5	90.3	320	22	AAB50863	Vascular anticoagu
24	1442.5	90.3	327	22	AAB50864	Modified human ann
25	1442.5	90.3	327	22	AAB50865	Modified human ann
26	1441.5	90.2	320	10	AAP91363	Human lipocortin-V
27	1419.5	88.8	319	13	AAR27718	CPB-1. Homo sapie
28	921	57.6	321	20	ABG96279	S65T GFP variant/h
29	921	57.6	324	21	AAB43617	Human ovarian canc
30	920	57.6	321	11	AAP91913	Human cancer assoc
31	920	57.6	321	10	AAR03726	Anticoagulative PP
32	920	57.6	786	11	AAR03725	Human placenta-der
33	919	57.5	672	11	ABU54621	Human placenta-der
34	919	57.5	675	24	AAY84790	Human NOVX polypep
35	904.5	56.6	320	21	AAB58393	Amino acid sequenc
36	886	55.4	208	21	AAR34127	Annexin XI type I
37	870	54.4	503	14	AAR34128	Annexin XI type I
38	862	53.9	505	14	AAY07117	Annexin XI type I
39	858	53.7	505	20	ABP69394	Lung cancer associ
40	852	53.3	299	22	AAP80715	Lung cancer associ
41	850	53.2	327	9	ABG19948	Novel human diagno
42	822.5	51.5	736	22	AAR91954	Human polypeptide
43	822.5	51.5	327	10	AAR35754	Sequence vascular
44	822.5	51.5	327	14	AAM78665	Vascular anti-coag
45	822.5	51.5	327	22	—	VAC-beta. Synthet

ALIGNMENTS

```
RESULT 1
ABP56248
ID   ABP56248 standard; Protein; 319 AA.
XX
AC   ABP56248;
XX
DT   28-MAR-2003  (first entry)
XX
DE   Human annexin V protein SEQ ID NO:3.
XX
KW   Annexin; modified; thrombosis; annexin V; thrombolytic;
KW   coronary thrombosis; overt cerebral thrombosis; arterial thrombosis;
KW   transient cerebral ischaemic attack; venous thrombosis.
XX
OS   Homo sapiens.
XX
XX
PN   WO200267857-A2.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-US05079.
XX
PR   21-FEB-2001; 2001US-270402P.
PR   21-NOV-2001; 2001US-332582P.
XX
PA   (SURR-) SURROMED INC.
XX
PI   Allison A;
XX
DR   WPI; 2003-129062/12.
DR   N-PSDB; AB221925.
XX
```

```
PT   Novel isolated modified annexin proteins comprising annexin protein
PT   coupled to polyethylene glycol or additional proteins, useful for
PT   treating thrombosis e.g. coronary thrombosis and overt cerebral
PT   thrombosis -
XX
PS   Claim 6; Page 36; 62pp; English.
XX
CC   The present invention describes a modified annexin protein (I) comprising
CC   an annexin protein coupled to: (i) polyethylene glycol (PEG); or (ii) an
CC   additional protein. (I) has thrombolytic activity and can be used as a
CC   thrombosis modulator, and an inhibitor of cellular and humoral
CC   mechanisms by which platelet aggregation is amplified. (I) can be used
CC   for treating a subject at risk from thrombosis. Preferably, a
CC   pharmaceutical composition comprising (I) is administered to a subject
CC   after coronary thrombosis, overt cerebral thrombosis, or transient
CC   cerebral ischaemic attack. More preferably, the pharmaceutical
CC   composition is administered to a diabetic patient who is at risk of
CC   arterial thrombosis. The pharmaceutical composition can also be
CC   administered during pregnancy or parturition. (I) is also useful for
CC   treating arterial or venous thrombosis caused by any medical procedure
CC   or condition as described above. (I) prevents arterial or venous
CC   thrombosis without increasing haemorrhage. The present sequence
CC   represents human annexin V, which is used in an example from the
CC   present invention.
XX
SQ   Sequence    319 AA;

Query Match              100.0%;    Score 1598;    DB 24;    Length 319;
Best Local Similarity    100.0%;    Pred. No. 1.7e-134;
Matches 319;    Conservative    0;    Mismatches    0;    Indels    0;    Gaps    0;

Qy     1 MALRGTVTDFESGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFG 60
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Db     1 MALRGTVTDFESGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFG 60

Qy    61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120

Qy   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180

Qy   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVK 240
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVK 240

Qy   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy   301 DTSGDYKKALLLLCGGEDD 319
          |||||||||||||||||||
Db   301 DTSGDYKKALLLLCGGEDD 319
```

```
RESULT 2
ABP56249

ID   ABP56249 standard;  Protein;  669 AA.
AC   ABP56249;
DT   28-MAR-2003  (first entry)
DE   Modified annexin protein SEQ ID NO:6.
KW   Annexin; modified; thrombosis; annexin V; thrombolytic;
KW   coronary thrombosis; overt cerebral thrombosis; arterial thrombosis;
KW   transient cerebral ischaemic attack; venous thrombosis.
OS   Homo sapiens.
OS   Synthetic.
XX
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FH   Key                 Location/Qualifiers
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FT   Misc-difference     15
FT                       /label= unknown
FT                       /note= "encoded by TCN"
FT   Misc-difference     334
FT                       /label= unknown
FT                       /note= "encoded by NNN"
FT   Misc-difference     351
FT                       /label= unknown
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XX
PN   WO200267857-A2.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-US05079.
XX
PR   21-FEB-2001; 2001US-2704002P.
PR   21-NOV-2001; 2001US-3325882P.
XX
PA   (SURR-) SURROMED INC.
XX
PI   Allison A;
XX
DR   WPI; 2003-1290622/12.
DR   N-PSDB; AB221926.
XX
PT   Novel isolated modified annexin proteins comprising annexin protein
PT   coupled to polyethylene glycol or additional proteins, useful for
PT   treating thrombosis e.g. coronary thrombosis and overt cerebral
PT   thrombosis -
XX
PS   Claim 6; Page 59-62; 62pp; English.
XX
CC   The present invention describes a modified annexin protein (I) comprising
CC   an annexin protein coupled to: (i) polyethylene glycol (PEG); or (ii) an
CC   additional protein. (I) has thrombolytic activity and can be used as a
CC   thrombosis modulator, and an inhibitor of cellular and humoral
CC   mechanisms by which platelet aggregation is amplified. (I) can be used
CC   for treating a subject at risk from thrombosis. Preferably, a
CC   pharmaceutical composition comprising (I) is administered to a subject
CC   after coronary thrombosis, overt cerebral thrombosis, or transient
CC   cerebral ischaemic attack. More preferably, the pharmaceutical
CC   composition is administered to a diabetic patient who is at risk of
CC   arterial thrombosis. The pharmaceutical composition can also be
CC   administered during pregnancy or parturition. (I) is also useful for
CC   treating arterial or venous thrombosis caused by any medical procedure
CC   or condition as described above. (I) prevents arterial or venous
CC   thrombosis without increasing haemorrhage. The present sequence
CC   represents a modified annexin protein from the present invention.
XX
SQ   Sequence    669 AA;

Query Match              99.7%;    Score 1593;    DB 24;    Length 669;
Best Local Similarity    100.0%;    Pred. No. 1.3e-133;
Matches 318;    Conservative    0;    Mismatches    0;    Indels    0;    Gaps    0;

Qy     2 ALRGTVTDFESGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGR 61
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    16 ALRGTVTDFESGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGR 75

Qy    62 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 121
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    76 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 135

Qy   122 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 181
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   136 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG 195

Qy   182 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 241
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   196 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 255
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Qy  242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFATSLYSMIKGD 301
Db  256 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFATSLYSMIKGD 315

Qy  302 TSGDYKKALLLLCGGEDD 319
Db  316 TSGDYKKALLLLCGGEDD 333

RESULT 3
ID   AAY13925 standard; protein; 318 AA.
XX
AC   AAY13925;
XX
DT   13-JUL-1999  (first entry)
XX
DE   S65T GFP variant/hAnnexin V protein.
XX
KW   GFP; green fluorescent protein; annexin; fusion protein; apoptosis;
KW   fluorescent intensity; anionic phospholipid binding affinity;
KW   asymmetric distribution; plasma membrane phospholipid;
KW   apoptotic cell detection.
XX
OS   Aequorea victoria.
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9919470-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998;  98WO-US21444.
XX
PR   09-OCT-1997;  97US-0948276.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Ernst JD;
XX
DR   WPI; 1999-277634/23.
XX
PT   Bifunctional fusion protein useful for the detection of apoptotic
PT   cells
XX
PS   Claim 2; Page 17-18; 23pp; English.
XX
CC   This sequence represents an example of a protein of the invention.
CC   The proteins are bifunctional Aequorea victoria green fluorescent protein
CC   (GFP)-annexin fusion proteins, where the GFP and annexin moieties provide
CC   greater or equal fluorescent intensity and anionic phospholipid binding
CC   affinity, respectively, than do the corresponding unfused GFP and annexin
CC   proteins. An early manifestation of apoptosis is the loss of the
CC   asymmetric distribution of plasma membrane phospholipids, which results
CC   in exposure of anionic phospholipids on the extracellular leaflet of the
CC   plasma membrane. The GFP-annexin V fusion proteins are used for the
CC   detection of apoptotic cells by flow cytometry or fluorescent microscopy.
CC   The fusion proteins provide for homogeneously labelled annexin, with
CC   fluorescence properties that do not change upon binding membrane
CC   phospholipids, unlike prior art FITC-labelled annexins, where quenching
CC   of FITC-annexin V fluorescence by 40-50% occurs upon binding phospholipid
CC   membranes.
XX
SQ   Sequence 318 AA;

Query Match      98.9%;  Score 1580;  DB 20;  Length 318;
Best Local Similarity   99.4%;  Pred. No. 6.8e-133;
Matches 316;  Conservative  0;  Mismatches  2;  Indels  0;  Gaps  0;

Qy    2 ALRGTVTDFSGFDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 61
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    1 ALRGTVTDFSGFDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGR 60
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Qy   62 DLVNDMKSELTGKFEKLIVALMKPSRLVDAYELKHALKGAGTDEKVLTEIIASRTPEELR 121
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 DLVNDMKSELTGKFEKLIVALMKPSRLIDAYELKHALKGAGTDEKVLTEIIASRTPEELR 120

Qy  122 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQAARDPDTAIDDAQVELDAQALFQAG 181
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  121 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQAARDPDTAIDDAQVELDAQALFQAG 180

Qy  182 ELKWGTDEEKFRITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVKS 241
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  181 ELKWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVKS 240

Qy  242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFATSLYSMIKGD 301
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  241 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSSEIDLFNIRKEFRKNFATSLYSMIKGD 300

Qy  302 TSGDYKKALLLLCGGEDD 319
         ||||||||||||||||||
Db  301 TSGDYKKALLLLCGGEDD 318

RESULT 4
ID   AAR75695 standard; peptide; 319 AA.
XX
AC   AAR75695;
XX
DT   21-JAN-1996  (first entry)
XX
DE   Rat annexin-V.
XX
KW   Amyloid precursor protein; APP; annexin-V; Alzheimer's disease;
KW   disease diagnosis; therapy; antibody.
XX
OS   Rattus rattus.
XX
PN   EP655626-A1.
XX
PD   31-MAY-1995.
XX
PF   10-NOV-1994;  94EP-0308309.
XX
PR   10-NOV-1993;  93US-0149975.
XX
PA   (MCLE-) MCLEAN HOSPITAL CORP.
XX
PI   Honda T, Nixon R;
XX
DR   WPI; 1995-195688/26.
XX
PT   Disclosure; Fig.9; 32pp; English.
PT   New peptide(s) associated with Alzheimer's disease - namely p33 and
PT   the amyloid precursor C2 fragment, useful for the prodn. of
PT   diagnostic antibodies
XX
FH   Key             Location/Qualifiers
FH
FT   Peptide         57..68
FT   Peptide         85..95
FT   Peptide         107..120
FT   Peptide         259..284
XX
CC   This amino acid sequence is contained within the 33 kDa protein
CC   (p33) sequence and the indicated peptides are produced following
CC   lysyl-endopeptidase cleavage of p33. Detection and quantification
CC   of this protein is therefore useful for diagnosing the disease.
XX
SQ   Sequence 319 AA;

Query Match      98.6%;  Score 1575;  DB 16;  Length 319;
Best Local Similarity   98.7%;  Pred. No. 1.9e-132;
Matches 315;  Conservative  1;  Mismatches  3;  Indels  0;  Gaps  0;
```

```
RESULT 5
AAY13924
ID   AAY13924 standard; protein; 319 AA.
XX
AC   AAY13924;
XX
DT   13-JUL-1999  (first entry)
XX
DE   S65T GFP variant/hAnnexin V protein.
XX
KW   GFP; green fluorescent protein; annexin; fusion protein; apoptosis;
KW   fluorescent intensity; annexin; anionic phospholipid binding affinity;
KW   asymmetric distribution; plasma membrane phospholipid binding affinity;
KW   apoptotic cell detection.
XX
OS   Aequorea victoria.
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9919470-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998;  98WO-US021444.
XX
PR   09-OCT-1997;  97US-0948276.
XX
PA   (REGC ) UNIV CALIFORNIA.
PI   Ernst JD;
XX
DR   WPI; 1999-277634/23.
XX
PT   Bifunctional fusion protein useful for the detection of apoptotic
PT   cells
XX
PS   Claim 2; Page 15-17; 23pp; English.

CC   This sequence represents an example of a protein of the invention.
CC   The proteins are bifunctional Aequorea victoria green fluorescent protein
CC   (GFP)-annexin fusion proteins, where the GFP and annexin moieties provide
CC   greater or equal fluorescent intensity and anionic phospholipid binding
CC   affinity, respectively, than do the corresponding unfused GFP and annexin
CC   proteins. An early manifestation of apoptosis is the loss of the
CC   asymmetric distribution of plasma membrane phospholipids, which results
CC   in exposure of anionic phospholipids on the extracellular leaflet of the
CC   plasma membrane. The GFP-annexin V fusion proteins are used for the
CC   detection of apoptotic cells by flow cytometry or fluorescent microscopy.

Qy   1 MALRGTVTDFSGFDGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFG 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MALRGTVTDFSGFDGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFG 60

Qy  61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
        ||||||||||||||||| ||||||||||||||||||| ||||||||||||||||||||||
Db  61 RDLVNDMKSELTGKFEGLIVALMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEEL 120

Qy 121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQA 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQA 180

Qy 181 GELKWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLLAVVK 240
        |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 181 GELKWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLLAVVK 240

Qy 241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
        ||||||||||||||||||||||| ||||||||||||||||||||||||||||||||||||
Db 241 SIRSIPAYLAETLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy 301 DTSGDYKKALLLLCGGEDD 319
        ||||||| |||||||||||
Db 301 DTSGDYKALLLLCGGEDD 319
```

```
RESULT 6
ABB57067
ID   ABB57067 standard; protein; 319 AA.
XX
AC   ABB57067;
XX
DT   07-MAR-2002  (first entry)
XX
DE   Mouse ischaemic condition related protein sequence SEQ ID NO:136.
XX
KW   Mouse; ischaemia; compressive ischaemia; occlusive ischaemia;
KW   vasospastic ischaemia; ischaemic condition; ischaemic disease.
XX
OS   Mus musculus.
XX
PN   WO200168188-A2.
XX
PD   22-NOV-2001.
XX
PF   18-MAY-2001;  2001WO-JP04192.
XX
PR   18-MAY-2000;  2000JP-0145977.
XX
PA   (UYNI-) UNIV NIHON SCHOOL JURIDICAL PERSON.
PI   Ishikawa K, Asai S, Takahashi Y, Nagata T, Ishii Y;
XX
DR   WPI; 2002-034733/04.
DR   N-PSDB; ABI99289.
XX
PT   Examining the ischemic condition (e.g. occlusive ischemia) by measuring
PT   expression levels of particular genes defined in the specification or
PT   by determining the expression profile of a gene group comprising these
PT   genes
XX
PS   Claim 2; Page 419-421; 2699pp; English.

CC   The fusion proteins provide for homogeneously labelled annexin, with
CC   fluorescence properties that do not change upon binding membrane
CC   phospholipids, unlike prior art FITC-labelled annexins, where quenching
CC   of FITC-annexin V fluorescence by 40-50% occurs upon binding phospholipid
CC   membranes.
XX
SQ   Sequence  319 AA;

Query Match  96.1%;  Score 1535;  DB 20;  Length 319;
Best Local Similarity  95.3%;  Pred. No. 7.1e-129;
Matches  304;  Conservative  7;  Mismatches  8;  Indels  0;  Gaps  0;

Qy   1 MALRGTVTDFSGFDGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFG 60
        ||| |||||| |||||||||||||||||||||||||||||||||||||||||| || :|||||
Db   1 MATRGTVTDFPGFDGPDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQEIAQEFKTLFG 60

Qy  61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
        ||||.|:||||||||||||||.||||||||||||||| ||||||||||||||||||||||
Db  61 RDLVDDLKSELTGKFEKLIVAMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEEL 120

Qy 121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQA 180
        .||||.|||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 121 SAIKQVYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQA 180

Qy 181 GELKWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLLAVVK 240
        |||||||||||||| ||||||||||||||| ||||||||||||||||||||| |||||||
Db 181 GELKWGTDEEKFITIIGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVK 240

Qy 241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
        ||||||||||||||||||||||| |||||:||||||||||||||||||||||||||||||
Db 241 SIRSIPAYLAETLYYAMKGAGTDHTLIRVVVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy 301 DTSGDYKKALLLLCGGEDD 319
        |||||||||||||||||||
Db 301 DTSGDYKKALLLLCGGEDD 319
```

CC   The present invention describes a method for examining ischaemic
CC   conditions, comprising measuring the expression levels of particular
CC   genes (I) in a test sample comprising genes selected from (I). The method
CC   is useful for examining the ischaemic condition (e.g. compressive
CC   ischaemia, occlusive ischaemia or vasospastic ischaemia) by measuring
CC   expression levels of particular genes (ABI99202 to ABI99912, encoding
CC   the protein sequences in ABB57020 to ABB57374) or by determining the
CC   expression profile of a gene group comprising these genes. The
CC   expression levels or expression profiles produced by these genes are
CC   used as an indicator when screening for ischaemic condition-improving
CC   drugs or therapeutics for ischaemic diseases. ABI99913 and ABI99914
CC   represent PCR primers for a mouse ischaemic condition related sequence,
CC   which are used in the exemplification of the present invention.
XX
SQ   Sequence   319 AA;

Query Match   96.1%; Score 1535; DB 23; Length 319;
Best Local Similarity   95.3%; Pred. No. 7.1e-129;
Matches 304; Conservative   7; Mismatches   8; Indels   0; Gaps   0;

Qy   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG   60
           |||||:||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MATRGTVTDFPGFDGRADAEVLRKAMKGLGTDEDSILNLLTSRSNAQRQEIAQEFKTLFG   60

Qy   61 RDLVDNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
           |||:|:|||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 RDLVDDLKSELTGKFEKLIVAMMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEEL 120

Qy   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   121 SAIKQVYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180

Qy   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVK 240
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVK 240

Qy   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVVVSSSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy   301 DTSGDYKKALLLLCGGEDD 319
           |||||||||||||||||||
Db   301 DTSGDYKKALLLLCGGEDD 319

DR   WPI; 1992-289937/35.
XX
PT   Stabilisation of CPB-1 for drug compsn. - by adding basic
PT   aminoacid selected from lysine, arginine and/or ornithine
XX
PS   Disclosure; Page 2; 4pp; Japanese.
XX
CC   The sequence given is the amino acid sequence of CPB-I. CPB-I was
CC   used within a method which involved adding basic amino acids to it
CC   which resulted in its stabilisation. This lead to the production of
CC   CPB-I which keeps its activity when it is frozen, molten or has been
CC   processed by several procedures.
CC   (Updated on 10-MAR-2003 to add missing OS field.)
XX
SQ   Sequence   319 AA;

Query Match   90.8%; Score 1451.5; DB 13; Length 319;
Best Local Similarity   91.5%; Pred. No. 2.1e-121;
Matches 290; Conservative 12; Mismatches 14; Indels   1; Gaps   1;

Qy   3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD   62
           ||||||||:|||||||||||||||||||||||||||||||||||||||||||||||||||
Db   4 LRGTVTDFPGFDGRADAEFTLRKAMKGLGTDEDSILTLLTSRSNAQRQEISAAFKTLFGRD   63

Qy   63 LVNDNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
           |::||:|||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   64 LIDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEELRA 123

Qy   123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
           ||||||||||||||||||||||||||||||||||||||||:||||||||||||||||||
Db   124 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 183

Qy   183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
           |||||||||||||||||||||||||||||||||||||||||||||||||||||||:|||
Db   184 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 243

Qy   243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
           ||||||||||||||||||||||||||||||:||||:|||||||||||||||||||||||
Db   244 RSIPAYLAETLYYAMKGAGTDDHTLIRVVVSSSEIDLFNIRKEFRKNFATSLYSMIKGDT 303

Qy   303 SGDYKKALLLLCGGEDD 319
           ||||||||||||:|||
Db   304 SGDYKKALLLLC-GEDD 319

RESULT 7
AAR26276
ID   AAR26276 standard; protein; 319 AA.
XX
AC   AAR26276;
XX
DT   10-MAR-2003 (updated)
DT   04-FEB-1993 (first entry)
XX
DE   CPB-I.
XX
KW   CPB-I; stabilisation; frozen; molten; processed; activity.
XX
OS   Homo sapiens.
XX
XX
PN   JP04198195-A.
XX
PD   17-JUL-1992.
XX
PF   28-NOV-1990;   90JP-0328286.
XX
PR   28-NOV-1990;   90JP-0328286.
XX
PA   (KAGA) KAGAKU OYOBI KESSEI RYOHO.
PA   (KOWA) KOWA CO LTD.
XX

RESULT 8
AAR41021
ID   AAR41021 standard; protein; 319 AA.
XX
AC   AAR41021;
XX
DT   29-MAR-1994 (first entry)
XX
DE   Calphobindin I (CBB-I).
XX
KW   Calphobindin I; CPB-I; Protein kinase C; PKC; inhibition; tumour.
XX
OS   Homo sapiens.
XX
XX
PN   JP05213769-A.
XX
PD   24-AUG-1993.
XX
PF   04-FEB-1992;   92JP-0019032.
XX
PR   04-FEB-1992;   92JP-0019032.
XX
PA   (KOWA) KOWA CO LTD.
PA   (KAGA-) ZH KAGAKU OYOBI KESSEN RYOHO KENKYUSHO.
XX
DR   WPI; 1993-299558/38.
XX
PT   Protein kinase C inhibitor effective against malignant tumours -

RESULT 9

```
ID   ABG32550 standard; protein; 319 AA.
XX
AC   ABG32550;
XX
DT   29-NOV-2002  (first entry)
XX
DE   Human CPB-1 protein.
XX
KW   Human; CPB-I; eye drop; ophthalmological; anexin V; corneal disease;
KW   calcium/phospholipid binding protein; polyhydric alcohol.
XX
OS   Homo sapiens.
XX
PN   WO2002677977-A1.
XX
PD   06-SEP-2002.
XX
PF   21-FEB-2002; 2002WO-JP01563.
XX
PR   26-FEB-2001; 2001JP-0050297.
XX
PA   (KOWA ) KOWA CO LTD.
PA   (KAGA ) CHEMO-SERO-THERAPEUTIC RES INST.
XX
PI   Naruse H, Sano M, Shinoda Y, Inagi T;
XX
DR   WPI; 2002-674988/72.
XX
PT   Eye drops for treating e.g. corneal diseases, contain CPB-I and
PT   polyhydric alcohol with specific carbonyl value, without unpleasant
PT   irritation upon dropping but with satisfactory long-term storability -
XX
PS   Claim 1; Page 2-3; 6pp; Japanese.
XX
CC   Calphobindin I (CPB-I) or recombinant calphobindin I (r-CPB-I)
CC   inhibits protein kinase C (PKC) and is useful in the treatment of
CC   malignant tumours caused by abnormal activation of PKC. CPB-I is
CC   extracted from human or animal organs and may be applied
CC   intravenously, orally, intramuscularly, percutaneously or rectally.
XX
SQ   Sequence  319 AA;

Query Match      90.8%;  Score 1451.5;  DB 14;  Length 319;
Best Local Similarity   91.5%;  Pred. No. 2.1e-121;
Matches  290;  Conservative   12;  Mismatches   14;  Indels    1;  Gaps    1;

Qy    3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIILNLLTARSNAQRQQIAEBFKTLFGRD  62
          ||||||| ||| ||||| |||||||||||||| ||  ||| ||||||| | : ||||||||
Db    4 LRGTVTDFPGFDERADAELTRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   63

Qy   63 LVNDMKSEITGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
          : :: |||:||||||||||||||||||||||||||| |||||:|||||||||||||||||
Db   64 LIDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA  123

Qy  123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  182
          |||.|||||||.|||||||||||||||||||||||||||| ||| ||||  |||||||||
Db  124 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE  183

Qy  183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI  242
          |||||||||||||||||||||||.||||||||||||||||||||||||||| ||||||||
Db  184 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI  243

Qy  243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
          ||||||||||||||||||||||||||||.|||||||||||||||||||||||||||||||
Db  244 RSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  303

Qy  303 SGDYKKALLLLCGGEDD  319
          |||||||||||| ||||
Db  304 SGDYKKALLLLC-GEDD  319
```

RESULT 10

```
ID   AAP80511 standard; protein; 320 AA.
XX
AC   AAP80511;
XX
DT   25-MAR-2003  (updated)
DT   10-MAR-2003  (updated)
DT   12-NOV-1990  (first entry)
XX
DE   Placental coagulation inhibitor.
XX
KW   Placental coagulation inhibitor; disseminated vascular coagulation;
KW   thrombosis.
XX
OS   Homo sapiens.
XX
PN   JP03219875-A.
XX
PN   EP279459-A.
XX
PD   24-AUG-1988.
XX
PF   19-FEB-1988; 88EP-0102468.
XX
PR   20-FEB-1987; 87JP-0037227.
PR   23-JUL-1987; 87JP-0184428.
XX
PA   (KOWA ) KOWA CO LTD.
XX
PI   Saino Y, Iwasaki A, Suda M;
XX
PT   Human; CPB-I; eye drop; ophthalmological; anexin V; corneal disease;
KW   calcium/phospholipid binding protein; polyhydric alcohol.
XX
CC   The invention relates to eye drops contain CPB-I (anexin V) and a
CC   polyhydric alcohol having a carbonyl value of not more than
CC   5micro Mol./g. The eyes drops are for treating e.g. corneal diseases.
CC   Such eye drops are without unpleasant irritation upon dropping but with
CC   satisfactory long-term storage stability. The present sequence is
CC   the human CPB-I (calcium/phospholipid binding) protein.
XX
SQ   Sequence  319 AA;

Query Match      90.8%;  Score 1451.5;  DB 23;  Length 319;
Best Local Similarity   91.5%;  Pred. No. 2.1e-121;
Matches  290;  Conservative   12;  Mismatches   14;  Indels    1;  Gaps    1;

Qy    3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIILNLLTARSNAQRQQIAEBFKTLFGRD  62
          ||||||| ||| ||||| |||||||||||||| ||  ||| ||||||| | : ||||||||
Db    4 LRGTVTDFPGFDERADAELTRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   63

Qy   63 LVNDMKSEITGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
          : :: |||:||||||||||||||||||||||||||| |||||:|||||||||||||||||
Db   64 LIDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA  123

Qy  123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  182
          |||.|||||||.|||||||||||||||||||||||||||| ||| ||||  |||||||||
Db  124 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE  183

Qy  183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI  242
          |||||||||||||||||||||||.||||||||||||||||||||||||||| ||||||||
Db  184 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI  243

Qy  243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
          ||||||||||||||||||||||||||||.|||||||||||||||||||||||||||||||
Db  244 RSIPAYLAETLYYAMKGAGTDDHTLIRVWVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  303

Qy  303 SGDYKKALLLLCGGEDD  319
          |||||||||||| ||||
Db  304 SGDYKKALLLLC-GEDD  319
```

DR   WPI; 1988-236733/34.
DR   WPI; 1991-329110/45.
DR   N-PSDB; AAN81113.
XX
PT   Recombinant placental coagulation inhibitor - useful for the prevention
PT   and treatment of thromboses or disseminated intra-vascular coagulation.
XX
PS   Disclosure; Page ?; ?pp; English.
XX
CC   This polypeptide exhibits strong anticoagulant activities and is useful
CC   for the treatment and prevention of e.g. thrombosis or disseminated
CC   intravascular coagulation in the brain, heart and peripheral blood
CC   vessels, such as cerebral and myocardial infarction. It has no
CC   antigenicity against man and can be produced in large amts. using
CC   recombinant methods.
XX
CC   (Updated on 10-MAR-2003 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PF field.)
CC   (Updated on 25-MAR-2003 to correct PR field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 320 AA;

Query Match   90.8%; Score 1451.5; DB 9; Length 320;
Best Local Similarity   91.5%; Pred. No. 2.1e-121;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

Qy   3 LRGTVTDFSGFPGRDADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
Db   5 LRGTVTDFPGFPGFPERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 64

Qy   63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIIASRTPEELRA 122
Db   65 LDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAGE 182
Db 125 IKQVEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy 183 LKWGTDEEKFIILGTRSVSHLRRVFDKXXMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
Db 185 LKWGTDEEKFIIFGTRSVSHLRKVFDKXXMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
Db 245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy 303 SGDYKKALLLLCGGEDD 319
Db 305 SGDYKKALLLLC-GEDD 320

RESULT 11
AAP91953
ID   AAP91953 standard; protein; 320 AA.
XX
AC   AAP91953;
XX
DT   25-MAR-2003 (updated)
DT   10-MAR-2003 (updated)
DT   30-JUL-1989 (first entry)
XX
DE   Vascular anti-coagulating protein-alpha.
XX
KW   Vascular anti-coagulating proteins; hybridomas; B-cells; myelomas.
OS   Chimeric - Homo sapiens.
OS   Chimeric - Mus musculus.
XX
FH   Key   Location/Qualifiers
FT   CDS   1..320
FT   /product=VAC-alpha protein
XX
PN   DE3810331-A.

XX
PD   05-OCT-1989.
XX
PF   26-MAR-1988;   88DE-3810331.
XX
PR   26-MAR-1988;   88DE-3810331.
DR   WPI; 1989-293724/41.
DR   N-PSDB; AAN91353.
XX
PA   (BOEH) BOEHRINGER INGELHEIM.
XX
PI   Gunther A;
XX
PT   Monoclonal antibodies to vascular anti-coagulating proteins - and
PT   hybridomas producing such antibodies.
XX
PS   Disclosure; fig 1; 11pp; German.
XX
CC   This vascular anti-coagulating protein (VAC)-alpha is used in the
CC   preparation of monoclonal antibodies (MAbs). The VAC-alpha is injected
CC   into a host animal, in conjugation with eg keyhole limpet haemocyanin,
CC   and the B-cells from immunised hosts are then fused with myeloma cells.
CC   The resultant hybridomas (VAA-8 and VAA-9) produce Abs specific to VAC-
CC   alpha. Abs can be used as immunoassay reagents to detect VAC proteins,
CC   as affinity ligands for protein purificn. and as medicaments for binding
CC   and/or neutralising VAC proteins in vivo. See also AAN91354 and
CC   EP-181465.
CC   (Updated on 10-MAR-2003 to add missing OS field.)
CC   (Updated on 25-MAR-2003 to correct PA field.)
XX
SQ   Sequence 320 AA;

Query Match   90.8%; Score 1451.5; DB 10; Length 320;
Best Local Similarity   91.5%; Pred. No. 2.1e-121;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

Qy   3 LRGTVTDFSGFPGRDADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
Db   5 LRGTVTDFPGFPGFPERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 64

Qy   63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIIASRTPEELRA 122
Db   65 LDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAGE 182
Db 125 IKQVEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy 183 LKWGTDEEKFIILGTRSVSHLRRVFDKXXMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
Db 185 LKWGTDEEKFIIFGTRSVSHLRKVFDKXXMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
Db 245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy 303 SGDYKKALLLLCGGEDD 319
Db 305 SGDYKKALLLLC-GEDD 320

RESULT 12
AAR13082
ID   AAR13082 standard; Protein; 320 AA.
XX
AC   AAR13082;
XX
DT   25-MAR-2003 (updated)
DT   30-SEP-1991 (first entry)
XX
DE   PAP-I.
XX

Left column

```
KW   Phospholipid; binding protein; lipocortin; domain; vitamin K; PBP;
KW   gla-domain; VKDP.
XX
OS   Homo sapiens.
XX
PN   WO9109953-A.
XX
PD   11-JUL-1991.
XX
PF   13-DEC-1990;    90WO-US07335.
XX
PR   29-DEC-1989;    89US-0459082.
XX
PA   (ZYMO ) ZYMOGENETICS INC.
XX
PI   Foster DC;
XX
DR   WPI; 1991-222905/30.
DR   N-PSDB; AAQ12679.
XX
PT   Recombinant prodn. of hybrid phospholipid-binding proteins -
PT   comprising lipocortin phospholipid-binding domain and
PT   vitamin K-dependent protein
XX
SQ   Sequence   320 AA;

Disclosure; Fig 7; 57pp; English.

This sequence, or a fragment of it, is used in the construction of
hybrid phospholipid-binding proteins (PBP) comprising at least one
lipocortin phopholipid binding domain (PBD), e.g. of PAP-I, joined
to a gla-domainless vitamin K-dependent protein, e.g. protein C or
activated protein C.   See AAQ12678-81 for such examples.
See also AAQ12678-81.
(Updated on 25-MAR-2003 to correct PA field.)

Query Match           90.8%;   Score 1451.5;  DB 12;  Length 320;
Best Local Similarity 91.5%;   Pred. No. 2.1e-121;
Matches  290; Conservative  12; Mismatches  14;  Indels   1;  Gaps   1;

Qy    3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD  62
         |||||||| |||| |||| ||||||||||||| ||| ||.|||||||| | | |||||||
Db    5 LRGTVTDFDPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD  64

Qy   63 LVNDMKSELITGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
         |::|||:||.||||||||||||||||||||||||||| |||||.||||||||||||||||
Db   65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy  123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||.|||||||.|||||||||||||||||||||||||||.||||.|||| |||||||||||
Db  125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy  183 LKWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         ||||||||||.|| |||||||||| ||||||||||||||||||||||||||.|||||||||
Db  185 LKWGTDEEKFITIFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy  243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||||.||||||||||||||||||||||||||||||
Db  245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy  303 SGDYKKALLLLCGGEDD 319
         |||||.|||||.|:|||
Db  305 SGDYKALLLLC-GEDD 320
```

Right column

```
DE   S65T GPP variant/hAnnexin V protein.
XX
KW   GFP; green fluorescent protein; annexin; fusion protein; apoptosis;
KW   fluorescent intensity; anionic phospholipid binding affinity;
KW   asymmetric distribution; plasma membrane phospholipid;
KW   apoptotic cell detection.
XX
OS   Aequorea victoria.
OS   Homo sapiens.
OS   Synthetic.
XX
PN   WO9919470-A2.
XX
PD   22-APR-1999.
XX
PF   09-OCT-1998;    98WO-US21444.
XX
PR   09-OCT-1997;    97US-0948276.
XX
PA   (REGC ) UNIV CALIFORNIA.
XX
PI   Ernst JD;
XX
DR   WPI; 1999-277634/23.
XX
PT   Bifunctional fusion protein useful for the detection of apoptotic
PT   cells
XX
Claim 2; Page 14-15; 23pp; English.

This sequence represents an example of a protein of the invention.
The proteins are bifunctional Aequorea victoria green fluorescent
(GFP)-annexin fusion proteins, where the GFP and annexin moieties provide
greater or equal fluorescent intensity and anionic phospholipid binding
affinity, respectively, than do the corresponding unfused GPP and annexin
proteins. An early manifestation of apoptosis is the loss of the
asymmetric distribution of plasma membrane phospholipids, which results
in exposure of anionic phospholipids on the extracellular leaflet of the
plasma membrane. The GFP-annexin V fusion proteins are used for the
detection of apoptotic cells by flow cytometry or fluorescent microscopy.
The fusion proteins provide for homogeneously labelled annexin, with
fluorescence properties that do not change upon binding membrane
phospholipids, unlike prior art FITC-labelled annexin, where quenching
of FITC-annexin V fluorescence by 40-50% occurs upon binding phospholipid
membranes.
XX
SQ   Sequence   320 AA;

Query Match           90.8%;   Score 1451.5;  DB 20;  Length 320;
Best Local Similarity 91.5%;   Pred. No. 2.1e-121;
Matches  290; Conservative  12; Mismatches  14;  Indels   1;  Gaps   1;

Qy    3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD  62
         |||||||| |||| |||| ||||||||||||| ||| ||.|||||||| | | |||||||
Db    5 LRGTVTDFDPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD  64

Qy   63 LVNDMKSELITGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
         |::|||:||.||||||||||||||||||||||||||| |||||.||||||||||||||||
Db   65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy  123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||.|||||||.|||||||||||||||||||||||||||.||||.|||| |||||||||||
Db  125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy  183 LKWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         ||||||||||.|| |||||||||| ||||||||||||||||||||||||||.|||||||||
Db  185 LKWGTDEEKFITIFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy  243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||||.||||||||||||||||||||||||||||||
Db  245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy  303 SGDYKKALLLLCGGEDD 319
Db  303 SGDYKKALLLLCGGEDD 319
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Bottom left block

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RESULT 13
AAY13923
ID    AAY13923 standard; protein; 320 AA.
XX
AC    AAY13923;
XX
DT    13-JUL-1999  (first entry)
XX
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Db   305 SGDYKKALLLLC-GEDD 320
              |||||||||||||| ||||
Qy   305 SGDYKKALLLLC-GEDD 320

RESULT 14
AAY84788
ID   AAY84788 standard; peptide; 320 AA.
XX
AC   AAY84788;
XX
DT   08-AUG-2000 (first entry)
XX
DE   Amino acid sequence of annexin V.
XX
KW   Annexin; phospholipid; antithrombotic; antitumor; antiinflammatory;
KW   coating; thrombogenic biomaterial; labelling compound; negative charge.
OS   Unidentified.
XX
FH   Key   Location/Qualifiers
FT   Domain   16..91
FT   /note= "domain 1"
XX
PN   FR2784106-A1.
XX
PD   07-APR-2000.
XX
PF   02-OCT-1998; 98FR-0012366.
PR   02-OCT-1998; 98FR-0012366.
XX
PA   (COMS) COMMISSARIAT ENERGIE ATOMIQUE.
PA   (UYPA-) UNIV CURIE PARIS VI P & M.
XX
PI   Sanson A, Rosso MF, Neumann JM, Cordier OF, Guerois R;
XX
DR   WPI; 2000-320664/28.
XX
PT   Chemical structure having affinity for phospholipid comprises chemical
PT   platform comprising six residues supporting set of chemical functions
PT   that are capable of binding to phospholipid -
XX
PS   Claim 13; Fig 6b; 63pp; French.
XX
CC   The present sequence represents an annexin polypeptide. The domain of
CC   annexin, which may be modified, is used to construct the chemical
CC   compounds of the invention. The specification describes chemical
CC   compounds which have an affinity for a phospholipid. The chemical
CC   compounds comprise at least one chemical platform comprising six
CC   residues supporting a set of chemical functions that are capable of
CC   binding to the phospholipid and at least partly define the affinity
CC   of the structure for the phospholipid. The compounds act as
CC   phospholipid sequesters. The compounds are useful for preparing
CC   antithrombotic, antitumor and antiinflammatory medicaments, for
CC   making coatings for thrombogenic biomaterials, and for preparing
CC   labelling compounds useful for analysing and detecting negative
CC   charges on cell surfaces and microvesicles in blood.
XX
SQ   Sequence 320 AA;

Query Match   90.8%; Score 1451.5; DB 21; Length 320;
Best Local Similarity   91.5%; Pred. No. 2.1e-121;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

Qy   3 LRGTVTVDFSGFDGRADAEVLRKAMKGLGTDEDSIINILTARSNAQRQIAEEFKTLFGRD 62
          ||| |||| | :||||||||||||||||||||||||||:|||||||||||||||||||||
Db   5 LRGTVTDFPPGFDERADAETLRKAMKGLGTDEESILLTLTSRSNAQRQEISAAFKTLFGRD 64

Qy   63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRPEELRA 122
          |:||:|||||||||||||||||||||||||||||||:||||||||:|:|:|||||||||
Db   65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRPEELRA 124

Qy   123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182

```
CC    presented is human annexin V, which contains a delta RACK binding site.
XX
SQ    Sequence    320 AA;

Query Match          90.8%;    Score 1451.5;  DB 23;  Length 320;
Best Local Similarity    91.5%;    Pred. No. 2.1e-121;
Matches  290;  Conservative  12;  Mismatches  14;  Indels    1;  Gaps    1;

Qy      3 LRGTVTDFSGFDGRDAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
          ||||||||| ||||||||||||||||||||||| :|||||||||::|:||||||||||||
Db      5 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKILFGRD 64

Qy     63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
          |||:|:|:||||||||||||||||||||||||: ||||:|:||:||||||||||||||||
Db     65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy    123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
          |||||||||||:||||:|:||||||||||||||||||||||| |||||||||||||||||
Db    125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy    183 LKWGTDEEKFITILGTRSVSHLRRVFDKXYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
          |||||||||||||| ||||||||:||||||||||||||||||||||||||||||||||||
Db    185 LKWGTDEEKFITILFGTRSVSHLRKVFDKXYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy    243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
          |||||||||||||||||||| ||||||||:||||||||||||||||||||||||||||||
Db    245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy    303 SGDYKKALLLLCGGEDD 319
          |||||||||||| ||||
Db    305 SGDYKKALLLLC-GEDD 320
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Job time : 26.8613 secs

OM protein - protein search, using sw model

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GenCore version 5.1.6

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(without alignments)
1333.438 Million cell updates/sec

Title: PCT-US03-24332-3
Perfect score: 1598
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Scoring table: BLOSUM62
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Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0
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Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 listing first 45 summaries

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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1580	98.9	318	4	US-08-948-276-3	Sequence 3, Appli
2	1575	98.6	319	4	US-09-149-975A-2	Sequence 2, Appli
3	1535	96.1	319	4	US-08-948-276-2	Sequence 2, Appl
4	1451.5	90.8	319	1	US-08-125-746-1	Sequence 1, Appli
5	1451.5	90.8	320	1	US-08-125-746-3	Sequence 3, Appli
6	1451.5	90.8	320	1	US-08-948-276-1	Sequence 1, Appli
7	1451.5	90.8	320	5	S225537-4 (Patent No. 5225537)	Sequence 1, Appli
8	1442.5	90.3	327	4	US-09-324-096A-2	Sequence 2, Appli
9	1442.5	90.3	327	4	US-09-324-096A-4	Sequence 4, Appli
10	1442.5	90.3	327	4	US-09-324-096A-6	Sequence 6, Appli
11	921	57.6	321	4	US-08-948-276-4	Sequence 4, Appli
12	916	57.3	319	3	US-08-526-136-14	Sequence 14, Appli
13	870	54.4	503	3	US-08-526-136-2	Sequence 2, Appli
14	870	54.4	505	4	US-08-526-136-4	Sequence 4, Appli
15	785	49.1	323	4	US-08-948-276-5	Sequence 5, Appli
16	760	47.6	466	3	US-08-526-136-13	Sequence 13, Appli
17	622	38.9	346	4	US-08-948-276-6	Sequence 6, Appli
18	374.5	23.4	316	4	US-09-325-932A-62	Sequence 62, Appli
19	237.5	14.9	239	4	US-09-325-932A-65	Sequence 65, Appli
20	221	13.8	184	4	US-09-325-932A-66	Sequence 66, Appli
21	118	7.4	849	4	US-09-157-257-4	Sequence 4, Appli
22	114	7.1	111	4	US-09-325-932A-63	Sequence 63, Appli
23	111.5	7.0	1051	4	US-08-965-762-14	Sequence 14, Appli
24	111.5	7.0	1051	4	US-09-911-927-14	Sequence 14, Appli
25	111.5	7.0	1051	4	US-09-911-882-14	Sequence 14, Appl
26	111.5	7.0	1051	4	US-09-911-888-14	Sequence 14, Appli
27	109	6.8	701	3	US-08-923-511-2	Sequence 2, Appli
28	109	6.8	701	4	US-09-416-874A-2	Sequence 2, Appli
29	105	6.6	73	4	US-09-325-932A-64	Sequence 64, Appl
30	105	6.6	365	4	US-09-149-476-696	Sequence 696, App
31	103.5	6.5	662	4	US-08-224-657-88	Sequence 88, Appl
32	103.5	6.5	662	1	US-09-354-138-88	Sequence 88, Appl
33	103	6.4	498	4	US-08-858-207A-310	Sequence 310, App
34	102	6.4	399	4	US-09-252-991A-22529	Sequence 22529, A
35	101.5	6.4	789	4	US-09-107-532A-6734	Sequence 6734, Ap
36	99.5	6.2	539	4	US-09-157-257-6	Sequence 6, Appli
37	99	6.2	611	4	US-09-252-991A-22158	Sequence 22158, A
38	98	6.1	501	4	US-09-157-257-8	Sequence 8, Appli
39	98	6.1	1098	4	US-08-125-992A-8	Sequence 8, Appli
40	97.5	6.1	395	4	US-09-107-532A-6955	Sequence 6955, Ap
41	97.5	6.1	421	4	US-09-252-991A-26478	Sequence 26478, A
42	97.5	6.1	457	4	US-09-134-001C-3838	Sequence 3838, Ap
43	95	5.9	1164	3	US-08-923-992A-2	Sequence 2, Appli
44	95	5.9	1164	4	US-08-923-992A-10	Sequence 10, Appl
45	94.5	5.9	441	4	US-09-328-352-5426	Sequence 5426, Ap

ALIGNMENTS

RESULT 1
US-08-948-276-3
; Sequence 3, Application US/08948276
; Patent No. 6511829
; GENERAL INFORMATION:
; APPLICANT: Ernst, Joel D.
; TITLE OF INVENTION: GFP-Annexin Fusion Proteins
; FILE REFERENCE: UCSF97-113
; CURRENT APPLICATION NUMBER: US/08/948,276
; CURRENT FILING DATE: 1997-10-09
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 3
; LENGTH: 318
; TYPE: PRT
; ORGANISM: rat
US-08-948-276-3

Query Match   98.9%; Score 1580; DB 4; Length 318;
Best Local Similarity   99.4%; Pred. No. 2.7e-149;
Matches 316; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

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Qy    2 ALRGTVTDFSGFDGRDADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQIAEEFKTLFGR 61
         ||||||||||||||| ||||||||||||||||||||||||||||||||||||||||||||
Db    1 ALRGTVTDFSGFDGRDADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQIAEEFKTLFGR 60

Qy   62 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR 121
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEELR 120

Qy  122 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAG 181
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  121 AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDDTAIDDAQVELDAQALFQAG 180

Qy  182 ELKWGTDEEKFITILGTRSVSHLRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 241
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  181 ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS 240

Qy  242 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 301
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  241 IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD 300

Qy  302 TSGDYKKALLLLCGGEDD 319
         ||||||||||||||||||
Db  301 TSGDYKKALLLLCGGEDD 318
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RESULT 2
US-08-149-975A-2
; Sequence 2, Application US/08149975A

; Patent No. 5849600
; GENERAL INFORMATION:
; APPLICANT: Nixon, Ralph
; APPLICANT: Honda, Toshiyuki
; TITLE OF INVENTION: DIAGNOSTIC ASSAYS FOR ALZHEIMER'S
; TITLE OF INVENTION: DISEASE
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Fish & Richardson P.C.
; STREET: 225 Franklin Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02110-2804
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/149,975A
; FILING DATE: 11-NOV-1993
; CLASSIFICATION: 436
; ATTORNEY/AGENT INFORMATION:
; NAME: Clark, Paul T.
; REGISTRATION NUMBER: 30,162
; REFERENCE/DOCKET NUMBER: 04843/016001
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 617/542-5070
; TELEFAX: 617/542-8906
; TELEX: 200154
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 319 amino acids
; TYPE: amino acid
; STRANDEDNESS: not relevant
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-08-149-975A-2

Query Match   98.6%; Score 1575; DB 2; Length 319;
Best Local Similarity 98.7%; Pred. No. 8.5e-149;
Matches   315; Conservative   1; Mismatches   3; Indels   0; Gaps   0;

Qy   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG 60
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG 60

Qy   61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120

Qy   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180

Qy   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVK 240
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVK 240

Qy   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy   301 DTSGDYKKALLLLCGGEDD 319
          |||||||||||||||||||
Db   301 DTSGDYKKALLLLCGGEDD 319

RESULT 3
US-08-948-276-2
; Sequence 2, Application US/08948276
; Patent No. 6511829

; GENERAL INFORMATION:
; APPLICANT: Ernst, Joel D.
; TITLE OF INVENTION: GFP-Annexin Fusion Proteins
; TITLE REFERENCE: UCSF97-113
; CURRENT APPLICATION NUMBER: US/08/948,276
; CURRENT FILING DATE: 1997-10-09
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 2
; LENGTH: 319
; TYPE: PRT
; ORGANISM: mouse
US-08-948-276-2

Query Match   96.1%; Score 1535; DB 4; Length 319;
Best Local Similarity 95.3%; Pred. No. 8.2e-145;
Matches   304; Conservative   7; Mismatches   8; Indels   0; Gaps   0;

Qy   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG 60
          ||:|||||| |:||||||||||||||||||||||||||||||||||||||:|:|||||||
Db   1 MATRGTVTDFPFGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQEIAQEFKTLFG 60

Qy   61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
          ||||:|||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 RDLVDDLKSELTGKFEKLIVAMMKPSRLYDAVELKHALKGAGTDEKVLTEIIASRTPEEL 120

Qy   121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180
          ||||:|||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   121 SAIKQVEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQA 180

Qy   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVK 240
          |||||||||||||||||||||||||||||||||||||||||||||||::||||||||||
Db   181 GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVK 240

Qy   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   241 SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG 300

Qy   301 DTSGDYKKALLLLCGGEDD 319
          |||||||||||||||||||
Db   301 DTSGDYKKALLLLCGGEDD 319

RESULT 4
US-08-125-746-1
; Sequence 1, Application US/08125746
; Patent No. 5591633

; GENERAL INFORMATION:
; APPLICANT: SAINO, YUSHI
; APPLICANT: IWASAKI, AKIO
; APPLICANT: SUDA, MAKOTO
; TITLE OF INVENTION: ANTICOAGULANT POLYPEPTIDE
; NUMBER OF SEQUENCES: 5
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
; ADDRESSEE: P.C.
; STREET: 1755 S. Jefferson Davis Highway, Suite 400
; CITY: Arlington
; STATE: Virginia
; COUNTRY: U.S.A.
; ZIP: 22202
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/125,746
; FILING DATE: 24-SEP-1993
; CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/807,623
; FILING DATE: 13-DEC-1991

; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: JP 0372227/1987
;   FILING DATE: 20-FEB-1987
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: JP 184428/1987
;   FILING DATE: 23-JUL-1987
; ATTORNEY/AGENT INFORMATION:
;   NAME: Oblon, No. 5591633man F.
;   REGISTRATION NUMBER: 24,618
;   REFERENCE/DOCKET NUMBER: 80-074-0 DIV
; TELECOMMUNICATION INFORMATION:
;   TELEPHONE: (703) 413-3000
;   TELEFAX: (703) 413-2220
;   TELEX: 248855 OPAT UR
; INFORMATION FOR SEQ ID NO: 1:
;   SEQUENCE CHARACTERISTICS:
;   LENGTH: 319 amino acids
;   TYPE: amino acid
;   TOPOLOGY: unknown
;   MOLECULE TYPE: protein
US-08-125-746-1

Query Match   90.8%;   Score 1451.5; DB 1; Length 319;
Best Local Similarity   91.5%;   Pred. No. 1.7e-136;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

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Qy    3  LRGTVTDFSGFPGDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRD  62
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Db    4  LRGTVTDFPPGFDERADAETLRKAMKGLGTDEESIITLLTSRSNAQREISAAFKTLFGRD   63

Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
         |:.:|||||||||||||||||||||||||||:||||||:|||||:|||||||||||||||
Db   64  LIDDLKSELTGKFEKLIVALMKPSRLYDAVELKHALKGAGTNEKVLTEIIASRTPEELRA  123

Qy  123  IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  182
         |||.:|||||||:|||||||||||||||||||||||||||:||||:|||:|||||||||:||
Db  124  IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDPDAGIDEAQVEQDAQALFQAGE  183

Qy  183  LKWGTDEEKFITLLGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI  242
         ||||||||||||:.|||||||||||:|||||:||||||||||||||||||||:|||||||||
Db  184  LKWGTDEEKFITIFGTRSVSHLRKVFDKYVMISGFQIEETIDRETSGNLEQLLLAVVKSI  243

Qy  243  RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
         ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db  244  RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  303

Qy  303  SGDYKKALLLLCGGEDD  319
         |||||||||||| ||||
Db  304  SGDYKKALLLLC-GEDD  319
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RESULT 5
US-08-125-746-3
Sequence 3, Application US/0812574 6
Patent No. 5591633
; GENERAL INFORMATION:
;   APPLICANT: SAINO, YUSHI
;   APPLICANT: IWASAKI, AKIO
;   APPLICANT: SUDA, MAKOTO
;   TITLE OF INVENTION: ANTICOAGULANT POLYPEPTIDE
;   NUMBER OF SEQUENCES: 5
;   CORRESPONDENCE ADDRESS:
;   ADDRESSEE: OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT,
;   ADDRESSEE: P.C.
;   STREET: 1755 S. Jefferson Davis Highway, Suite 400
;   CITY: Arlington
;   STATE: Virginia
;   COUNTRY: U.S.A.
;   ZIP: 22202
;   COMPUTER READABLE FORM:
;   MEDIUM TYPE: Floppy disk
;   COMPUTER: IBM PC compatible
;   OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
;   APPLICATION NUMBER: US/08/125,746
;   FILING DATE: 24-SEP-1993
;   CLASSIFICATION: 530
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: US 07/807,623
;   FILING DATE: 13-DEC-1991
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: JP 0372227/1987
;   FILING DATE: 20-FEB-1987
; PRIOR APPLICATION DATA:
;   APPLICATION NUMBER: JP 184428/1987
;   FILING DATE: 23-JUL-1987
; ATTORNEY/AGENT INFORMATION:
;   NAME: Oblon, No. 5591633man F.
;   REGISTRATION NUMBER: 24,618
;   REFERENCE/DOCKET NUMBER: 80-074-0 DIV
; TELECOMMUNICATION INFORMATION:
;   TELEPHONE: (703) 413-3000
;   TELEFAX: (703) 413-2220
;   TELEX: 248855 OPAT UR
; INFORMATION FOR SEQ ID NO: 3:
;   SEQUENCE CHARACTERISTICS:
;   LENGTH: 320 amino acids
;   TYPE: amino acid
;   TOPOLOGY: linear
;   MOLECULE TYPE: protein
US-08-125-746-3

Query Match   90.8%;   Score 1451.5; DB 1; Length 320;
Best Local Similarity   91.5%;   Pred. No. 1.7e-136;
Matches 290; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

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Qy    3  LRGTVTDFSGFPGDGRADAEVLRKAMKGLGTDEDSIINLLTARSNAQRQQIAEEFKTLFGRD  62
         |||||||| |||| || |||||:|||||||||||:|||| |||:||||||||:: ||||||||
Db    4  LRGTVTDFPPGFDERADAETLRKAMKGLGTDEESIITLLTSRSNAQREISAAFKTLFGRD   64

Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
         |:.:|||||||||||||||||||||||||||:||||||:|||||:|||||||||||||||
Db   65  LIDDLKSELTGKFEKLIVALMKPSRLYDAVELKHALKGAGTNEKVLTEIIASRTPEELRA  124

Qy  123  IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  182
         |||.:|||||||:|||||||||||||||||||||||||||:||||:|||:|||||||||:||
Db  124  IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDPDAGIDEAQVEQDAQALFQAGE  182

Qy  183  LKWGTDEEKFITLLGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI  242
         ||||||||||||:.|||||||||||:|||||:||||||||||||||||||||:|||||||||
Db  185  LKWGTDEEKFITIFGTRSVSHLRKVFDKYVMISGFQIEETIDRETSGNLEQLLLAVVKSI  244

Qy  243  RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
         ||||||||||||||||||||||||||||||:||||||||||||||||||||||||||||||
Db  245  RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  304

Qy  303  SGDYKKALLLLCGGEDD  319
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Db  305  SGDYKKALLLLC-GEDD  320
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RESULT 6
US-08-948-276-1
Sequence 1, Application US/08948276
Patent No. 6511829
; GENERAL INFORMATION:
;   APPLICANT: Ernst, Joel D.
;   TITLE OF INVENTION: GFP-Annexin Fusion Proteins
;   FILE REFERENCE: UCSF97-113
;   CURRENT APPLICATION NUMBER: US/08/948,276
;   CURRENT FILING DATE: 1997-10-09
;   NUMBER OF SEQ ID NOS: 6
;   SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 1
;   LENGTH: 320

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;  TYPE: PRT
;  ORGANISM: human
US-08-948-276-1

Query Match             90.8%;  Score 1451.5;  DB 4;  Length 320;
Best Local Similarity   91.5%;  Pred. No. 1.7e-136;
Matches   290;  Conservative  12;  Mismatches  14;  Indels    1;  Gaps    1;

Qy      3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||:||||||
Db      5 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQEISAAFKTLFGRD 64

Qy     63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
          |::+:|.||||||||||:|||||||||||||||||:|||||||||||||||||||||||||
Db      5 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy    123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy    183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITIDRETSGNLENLLLAVVKSI 242
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    185 LKWGTDEEKFITILFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy    243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy    303 SGDYKKALLLLCGGEDD 319
          |||||||||||  ||||
Db    305 SGDYKKALLLLC-GEDD 320

RESULT 7
5225537-4
;Patent No. 5225537
;APPLICANT: FOSTER, DONALD
;TITLE OF INVENTION: METHODS FOR PRODUCING HYBRID
;PHOSPHOLIPID-BINDING PROTEINS
;NUMBER OF SEQUENCES: 14
;CURRENT APPLICATION DATA:
;    APPLICATION NUMBER: US/07/459,082
;    FILING DATE: 29-DEC-1989
;SEQ ID NO:4:
;    LENGTH: 320
;    TYPE: PRT
;    ORGANISM: Homo sapiens
US-09-324-096A-2

Query Match             90.3%;  Score 1451.5;  DB 6;  Length 320;
Best Local Similarity   91.5%;  Pred. No. 1.7e-136;
Matches   290;  Conservative  12;  Mismatches  14;  Indels    1;  Gaps    1;

Qy      3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||:||||||
Db      5 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQEISAAFKTLFGRD 64

Qy     63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
          |::+:|.||||||||||:|||||||||||||||||:|||||||||||||||||||||||||
Db      5 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 124

Qy    123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy    183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITIDRETSGNLENLLLAVVKSI 242
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    185 LKWGTDEEKFITILFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 244

Qy    243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    245 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 304

Qy    303 SGDYKKALLLLCGGEDD 319
          |||||||||||  ||||
Db    305 SGDYKKALLLLC-GEDD 320
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Db    305 SGDYKKALLLLC-GEDD 320

RESULT 8
US-09-324-096A-2
; Sequence 2, Application US/09324096A
; Patent No. 6323313
; GENERAL INFORMATION:
; APPLICANT: Tait, Jonathan
; APPLICANT: Brown, David
; TITLE OF INVENTION: ANNEXIN DERIVATIVE WITH ENDOGENOUS CHELATION SITES
; FILE REFERENCE: UOFW-1-13841
; CURRENT APPLICATION NUMBER: US/09/324,096A
; CURRENT FILING DATE: 1999-06-01
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 2
;   LENGTH: 327
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-324-096A-2

Query Match             90.3%;  Score 1442.5;  DB 4;  Length 327;
Best Local Similarity   91.2%;  Pred. No. 1.4e-135;
Matches   289;  Conservative  12;  Mismatches  15;  Indels    1;  Gaps    1;

Qy      3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRD 62
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||:||||||
Db     12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQEISAAFKTLFGRD 71

Qy     63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
          |::+:|.||||||||||:|||||||||||||||||:|||||||||||||||||||||||||
Db     72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 131

Qy    123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    132 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 191

Qy    183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITIDRETSGNLENLLLAVVKSI 242
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    192 LKWGTDEEKFITILFGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 251

Qy    243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    252 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 311

Qy    303 SGDYKKALLLLCGGEDD 319
          |||||||||||  ||||
Db    312 SGDYKKALLLL-SGEDD 327

RESULT 9
US-09-324-096A-4
; Sequence 4, Application US/09324096A
; Patent No. 6323313
; GENERAL INFORMATION:
; APPLICANT: Tait, Jonathan
; APPLICANT: Brown, David
; TITLE OF INVENTION: ANNEXIN DERIVATIVE WITH ENDOGENOUS CHELATION SITES
; FILE REFERENCE: UOFW-1-13841
; CURRENT APPLICATION NUMBER: US/09/324,096A
; CURRENT FILING DATE: 1999-06-01
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 4
;   LENGTH: 327
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-324-096A-4

Query Match             90.3%;  Score 1442.5;  DB 4;  Length 327;
Best Local Similarity   91.2%;  Pred. No. 1.4e-135;
Matches   289;  Conservative  12;  Mismatches  15;  Indels    1;  Gaps    1;
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RESULT 10
US-09-324-096A-6
; Sequence 6, Application US/0932496A
; Patent No. 6323313
; GENERAL INFORMATION:
; APPLICANT: Tait, Jonathan
; APPLICANT: Brown, David
; TITLE OF INVENTION: ANNEXIN DERIVATIVE WITH ENDOGENOUS CHELATION SITES
; FILE REFERENCE: UOFW-1-13841
; CURRENT APPLICATION NUMBER: US/09/324,096A
; CURRENT FILING DATE: 1999-06-01
; NUMBER OF SEQ ID NOS: 12
; SOFTWARE: Patentin version 3.0
;
; SEQ ID NO 6
; LENGTH: 327
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-324-096A-6

Query Match   90.3%; Score 1442.5; DB 4; Length 327;
Best Local Similarity   91.2%;
Matches 289; Conservative   12; Mismatches   15; Indels   1; Gaps   1;

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Qy    3  LRGTVTDFSGFGFGRDAEAEVLRKAMKGLGTDEDSIINLLTARSNAQRQOIAEEFKTLFGRD   62
         |||||||| ||| |  ||| |||||||||||||| ||| ||| |||||||| | | ||||||
Db   12  LRGTVTDFPGFGPEDPADAETLRKAMKGLGTDEESIITLLTSRSNAQRQEISAAFKTLFGRD   71

Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA   122
         |  |:||||||||||||||||||||||||||||||||||||||||:|||||||||||||||||
Db   72  LIDDLKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTNEKVLTEIIASRTPEELRA   131

Qy  123  IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAGE   182
         |||:||||||| ||||||||||||||||||||||||||   |  |||| ||||||||||
Db  132  IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDDPAGIDEAQVEQDAQALFQAGE   191

Qy  183  LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI   242
         ||||||||||| | |||||||||:||||||||||||||||||||||||||||||||||||
Db  192  LKWGTDEEKFIIIFGTRSVSHLRKRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI   251

Qy  243  RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT   302
         ||||||||||||||||||||||||||||| |||||||||||||||||||||||||||||||
Db  252  RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT   311

Qy  303  SGDYKKALLLL-CGGEDD   319
         ||||||||||| .|| ||
Db  312  SGDYKKALLLL-SGEDD   327
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RESULT 11
US-08-948-276-4
; Sequence 4, Application US/08948276
; Patent No. 6511829
; GENERAL INFORMATION:
; APPLICANT: Ernst, Joel D.
; TITLE OF INVENTION: GFP-Annexin Fusion Proteins
; FILE REFERENCE: UCSF97-113
; CURRENT APPLICATION NUMBER: US/08/948,276
; CURRENT FILING DATE: 1997-10-09
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
;
; SEQ ID NO 4
; LENGTH: 321
; TYPE: PRT
; ORGANISM: human
US-08-948-276-4

Query Match   57.6%; Score 921; DB 4; Length 321;
Best Local Similarity   57.3%;
Matches 180; Conservative   56; Mismatches   78; Indels   0; Gaps   0;

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Qy    5  GTVTDFSGFGFGRDAEAEVLRKAMKGLGTDEDSIINLLTARSNAQRQOIAEEFKTLFGRDLV   64
         |||.| || ||.|:|: |.|||||||||||||| |:.|| | :||||| |   | ||||||:
Db    8  GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRTAYKSTIGRDLI   67

Qy   65  NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK   124
         .|:||||:| ||::||.:| .: .|:|.||||| | ||||| ::|:|:||||||||:|.|
Db   68  DDLKSELSGNFEQVIVGMMTPTVLIDVQELRRAMKGAGTDEGCLIEILASRTPEEIRIS   127

Qy  125  QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPTAIDDAQVELDAQALFQAGELK   184
         |:|:.||| .|||| .| || |.||.||.| . | |||  :||| | ||| |.:|||.|
Db  128  QTYQQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDLYEAGEKK   187

Qy  185  WGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRS   244
         |||| .||.:| .|...|.| |||:|::||. ::|: |:|| |||.:|.||:|:|| :|
Db  188  WGTDEVKFLTVLCSRNRNHLLHVFDEYKRISQKDIEQSIKSETSGSFEDALLAIVKCMRN   247

Qy  245  IPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSG   304
         . ||.||.||..|||.|||| ||||:.|| ||| : :|  | ||:.  ||||.||||||
Db  248  KSAYFAEKLYKSMKGLGTDDNTLIRVMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG   307

Qy  305  DYKKALLLLCGGED   318
         || | |:.|||.
Db  308  DYRKVLIVLCGGDD   321
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RESULT 12
US-08-526-136-14
; Sequence 14, Application US/08526136
; Patent No. 6107089
; GENERAL INFORMATION:
; APPLICANT: Towle, Christine A. et al.
; TITLE OF INVENTION: ANNEXIN XI
; NUMBER OF SEQUENCES: 36
; CORRESPONDENCE ADDRESS:
;   ADDRESSEE: Fish & Richardson
;   STREET: 225 Franklin Street
;   CITY: Boston
;   STATE: Massachusetts
;   COUNTRY: U.S.A.
;   ZIP: 02110-2804
; COMPUTER READABLE FORM:
;   MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
;   COMPUTER: IBM PS/2 Model 50Z or 55SX
;   OPERATING SYSTEM: IBM P.C. DOS (Version 3.30)
;   SOFTWARE: WordPerfect (Version 5.0)
; CURRENT APPLICATION DATA:
;   APPLICATION NUMBER: US/08/526,136
;   FILING DATE:
;   CLASSIFICATION: 435
; PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/214,036
FILING DATE:
FILING DATE:
APPLICATION NUMBER: 07/837,775
FILING DATE: February 13, 1992
APPLICATION NUMBER: 07/764,465
FILING DATE: September 23, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00786/099001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 14:
SEQUENCE CHARACTERISTICS:
LENGTH: 319
TYPE: amino acid
STRANDEDNESS: N/A
TOPOLOGY: N/A
US-08-526-136-14

Query Match   57.3%; Score 916; DB 3; Length 319;
Best Local Similarity 57.3%; Pred. No. 4e-83;
Matches 180; Conservative 54; Mismatches 80; Indels 0; Gaps 0;

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Qy    5 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRDLV  64
          |:|.||.|||.|||.|:|||||||||||||||||||||||:|||||||:||||:
Db    6 GTVKAASGFNAAEDAQACTLRKAMKGLGTDEDAIINVLAVRSTAQRQEIRTAYKTTIGRDLM  65

Qy   65 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK  124
          ||:||||||||.|||.||||||.||||||||.|||:|||||||||||||||:|
Db   66 DDLKSELSGNFEQVILGMMTPTVLYDVQELRKAMKGAGTDEGCLIEILASRTPEEIRRIN  125

Qy  125 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELK  184
          |.||||||||||:|.|||||||||||||||||||||||||:.||||.|||||||:
Db  126 QTYQLQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDESNYLDDALMRQDAQDLYEAGEKK  185

Qy  185 WGTDEEKFITILGTRSVSHLRRVPDPKYMTISGFQIEEIIDRETSGNLENLLLAVVKSIRS  244
          ||||:||||||||||:|||||.:|||:||||||||||||||||||||||||||||||:
Db  186 WGTDEVKFLIVLCSRNRNHLLHVFDEYKRIAQKDIEQSIKSETSGSSFEDALLAIVKCMRN  245

Qy  245 IPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDTSG  304
          ||||||||||||||||||||||||||:||||||||||||||||||||||||||||:||
Db  246 KSAYPAERLYKSMKGLGTDDDTLIRVMVSRAEIDMLDIRANFKRLYGKSLYSFIKGDTSG  305

Qy  305 DYKKALLLLCGGED  318
          ||:||||:|||||:|
Db  306 DYRKVLLILCGGDD  319
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RESULT 13
US-08-526-136-2
Sequence 2, Application US/0852136
Patent No. 6107089
GENERAL INFORMATION:
APPLICANT: Towle, Christine A. et al.
NUMBER OF SEQUENCES: 36
TITLE OF INVENTION: ANNEXIN XI
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 55SX
OPERATING SYSTEM: IBM P.C. DOS (Version 5.0)
SOFTWARE: WordPerfect (Version 3.30)
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/526,136

FILING DATE:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US/08/214,036
FILING DATE:
FILING DATE:
APPLICATION NUMBER: 07/837,775
FILING DATE: February 13, 1992
APPLICATION NUMBER: 07/764,465
FILING DATE: September 23, 1991
ATTORNEY/AGENT INFORMATION:
NAME: Clark, Paul T.
REGISTRATION NUMBER: 30,162
REFERENCE/DOCKET NUMBER: 00786/099001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 542-5070
TELEFAX: (617) 542-8906
TELEX: 200154
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 503
TYPE: amino acid
TOPOLOGY: N/A
US-08-526-136-2

Query Match   54.4%; Score 870; DB 3; Length 503;
Best Local Similarity 55.6%; Pred. No. 3 1e-78;
Matches 175; Conservative 54; Mismatches 86; Indels 0; Gaps 0;

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Qy    4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRDL  63
          ||.||.||||.|||.|||:|||||||||||||||||||||||:||:|||||:||||:
Db  189 RGTITDASGPDPLRDAEVLRKAMKGFGGTDEQALIIDCLGSRSNKQRQILLSFKTAYGKDL  248

Qy   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI  123
          ||:||||:|||||.|.||:|:.|||.|||||:|||:||||||||||||||||:||:
Db  249 IKDLKSELSGNFEKTLIALMKTPVLFDAYEIKEAIKGAGTDEACLIEILASRSNEHIREL  308

Qy  124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL  183
          ||.|:|||||:|.||||||||||||||||||||||||||||||||:.||||.||||||:
Db  309 NRVKTEPKTLEEAIRSDTSGHFQRLLISLSQGNRDESTNVDMILVQRDVQELYAAGEN  368

Qy  184 KWGTDEEKFITILGTRSVSHLRRVFDKXWTISGFQIEEIIDRETSGNLENLLLAVVKSIR  243
          |||||:||||||||||:|.|||.:|.|:|||||||||||||||||||||||||||:
Db  369 RLGTDBSKFNAILCSRSRAHLVAVFNEYQRWTGRDIEKSICREMSGDLEQGMLAVVKCLK  428

Qy  244 SIPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNPATSLYSMIKGDTS  303
          |||||||||||||||||||||||||||:|||||||||||||||||||||||||||||:
Db  429 NTPAFFAERLNKAMRGAGTKDRTLIRMVSRSEIDLLDIRAEYKRLYGKSLYHDIGDIS  488

Qy  304 GDYKKALLLLCGGED  318
          ||:||||:|||||:|
Db  489 GDYRKILLKICGGND  503
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RESULT 14
US-08-526-136-4
Sequence 4, Application US/08526136
Patent No. 6107089
GENERAL INFORMATION:
APPLICANT: Towle, Christine A. et al.
NUMBER OF SEQUENCES: 36
TITLE OF INVENTION: ANNEXIN XI
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish & Richardson
STREET: 225 Franklin Street
CITY: Boston
STATE: Massachusetts
COUNTRY: U.S.A.
ZIP: 02110-2804
COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5" Diskette, 1.44 Mb
COMPUTER: IBM PS/2 Model 502 or 55SX
OPERATING SYSTEM: IBM P.C. DOS (Version 3.30)
SOFTWARE: WordPerfect (Version 5.0)

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CURRENT APPLICATION DATA:
     APPLICATION NUMBER: US/08/526,136
     FILING DATE:
     CLASSIFICATION:  435
PRIOR APPLICATION DATA:
     APPLICATION NUMBER: US/08/214,036
     FILING DATE:
     APPLICATION NUMBER: 07/837,775
     FILING DATE:  February 13, 1992
     APPLICATION NUMBER: 07/764,465
     FILING DATE:  September 23, 1991
ATTORNEY/AGENT INFORMATION:
     NAME:  Clark, Paul T.
     REGISTRATION NUMBER:  30,162
     REFERENCE/DOCKET NUMBER:  00786/099001
TELECOMMUNICATION INFORMATION:
     TELEPHONE:  (617) 542-5070
     TELEFAX:  (617) 542-8906
     TELEX:  200154
INFORMATION FOR SEQ ID NO:  4:
     SEQUENCE CHARACTERISTICS:
     LENGTH:  505
     TYPE:  amino acid
     TOPOLOGY:  N/A
US-08-526-136-4
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Query Match                   49.1%;  Score 785;  DB 4;  Length 323;
Best Local Similarity          48.3%;  Pred. No. 4.6e-70;
Matches 152;  Conservative    68;  Mismatches   95;  Indels    0;  Gaps    0;

Qy       4  RGTVTDFSGFDGDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL   63
            |||||:.|||:: |  |.|   |||||||||||||||||||||.||::||||||||||||||
Db       9  RGTVRDYPDFSPSVDAEAIQKAIRGIGTDEKMLISILTERSNAQRQLIVKEIYQAAYGKEL   68

Qy      64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI  123
            ::|:|.|||||:|||:|||||.|.||||||||||||||||||||||::||||:||||:|:
Db      69  KDDLKGDLSGHFEHLMVALVTPPAVFDAKQLKKSMKGAGTNEDALIEILTTRTSRQMKDI  128

Qy     124  KQAYEEEYGSNLEDDVVGDTSGYYQRMLVLLQANRDPDTAIDDAQVELDAQALFQAGEL  183
            |||.|:||||||.|||  ||:||||||||||||||||||||||||||||||||||||.||
Db     129  SQAYYTVYKKSLGDDISSETSGDFRKALLTLADGRRDESLKVDEHLAKQDAQIIYKAGEN  188

Qy     184  KWGTDEEKFIIILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR  243
            ||||||||||||||||||||||||||||:|||||||||||||||||||||||||.||||: :
Db     189  RWGTDEDKFTEILCLRSFPQLKLTFDEYRNISQKDIVDSIKGELSGHFEDLILLAIVNCVR  248

Qy     244  SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS  303
            ||||||:||.|::|||||||:||||:|||||||||||:|||||||||||||||:|||||
Db     249  NTPAFLAERLHRALKGIGTDEFTLNRIMVSRSEIDLLDIRAEYKRLYGKSLYHDITGDTS  308

Qy     304  GDYKKALLLLCGGED  318
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Db     309  GDYEITLLKICGGDD  323

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RESULT 15
US-08-948-276-5
     Sequence 5, Application US/08948276
     Patent No. 6511829
GENERAL INFORMATION:
APPLICANT:  Ernst, Joel D.
TITLE OF INVENTION:  GFP-Annexin Fusion Proteins
FILE REFERENCE:  UCSF97-113
CURRENT APPLICATION NUMBER: US/08/948,276
CURRENT FILING DATE:  1997-10-09
NUMBER OF SEQ ID NOS:  6
SOFTWARE:  PatentIn Ver. 2.0
SEQ ID NO 5
     LENGTH: 323
     TYPE:  PRT
     ORGANISM: human
US-08-948-276-5
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Query Match                   54.4%;  Score 870;  DB 3;  Length 505;
Best Local Similarity          55.8%;  Pred. No. 3.1e-78;
Matches 175;  Conservative    54;  Mismatches   86;  Indels    0;  Gaps    0;

Qy       4  RGTVTDFSGFDGDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL   63
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Db     191  RGTITDASGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQQILLSFKTAYGKDL   250

Qy      64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI  123
            ::|:|.|||||:|||:|||||.|.||||||||||||||||||||||::||||:||||:|:
Db     251  IKDLKSELSGNFEKTILALMKTPVLFDAYEIKEAIKGAGTDEACLIEILASRSNEHIREL  310

Qy     124  KQAYEEEYGSNLEDDVVGDTSGYYQRMLVLLQANRDPDTAIDDAQVELDAQALFQAGEL  183
            |||.|:||||||.|||  ||:||||||||||||||||||||||||||||||||||||.||
Db     311  NRVYKTEFKKTLEEAIRSDTSCHFQRLLISLSQGRNDESTNVDMTLVQRDVQELYFAAGEN  370

Qy     184  KWGTDEEKFIIILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR  243
            ||||||||||||||||||||||||||||:|||||||||||||||||||||||||.||||: :
Db     371  RLGTDESKFNALLCSRSRAHLVAVFNEYQRMTGRDIEKSICREMSGDLEQGMLAVVKCLK  430

Qy     244  SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS  303
            ||||||:||.|::|||||||:||||:|||||||||||:|||||||||||||||:|||||
Db     431  NTPAFFAERLNKAMRGAGTKDRTLIRIMVSRSEIDLLDIRAFYKRLYGKSLYHDITGDTS  490

Qy     304  GDYKKALLLLCGGED  318
            ||:||||||:|||:|
Db     491  GDYRKILLKICGGND  505
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OM protein - protein search, using sw model

GenCore version 5.1.6
Copyright (c) 1993 - 2003 Compugen Ltd.

Run on: December 12, 2003, 14:50:08 ; Search time 17.7581 Seconds
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Title: PCT-US03-24332-3
Perfect score: 1598
Sequence: 1 MALRGTVTDFSGFDGRADAE.........GDTSGDYKKALLLCGGEDD 319

Scoring table: BLOSUM62
                GapOp 10.0 , Gapext 0.5

Post-processing: Minimum Match 0%
                 Maximum Match 100%

Searched: 684280 seqs, 185983659 residues

Total number of hits satisfying chosen parameters: 684280

Minimum DB seq length: 0
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Database :   Published Applications_AA:*
                Listing first 45 summaries

                1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*
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                8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
                9: /cgn2_6/ptodata/2/pubpaa/US09A_PUBCOMB.pep:*
               10: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*
               11: /cgn2_6/ptodata/2/pubpaa/US09C_PUBCOMB.pep:*
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Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

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2	1593	99.7	669	12	US-10-080-370-6	Sequence 6, Appli
3	1451.5	90.8	320	14	US-10-007-761-72	Sequence 72, Appli
4	1442.5	90.3	622	10	US-09-970-969-2	Sequence 2, Appli
5	1442.5	90.3	327	10	US-09-970-969-4	Sequence 4, Appli
6	1442.5	90.3	327	10	US-09-970-969-6	Sequence 6, Appli
7	921	57.6	327	15	US-10-097-340-10	Sequence 10, Appl
8	921	57.6	321	15	US-10-097-340-1062	Sequence 1062, Ap
9	886	55.4	324	9	US-09-925-301-731	Sequence 731, App
10	822.5	51.5	208	9	US-09-925-302-731	Sequence 18, Appl
11	787	49.2	327	12	US-10-236-031-18	Sequence 18, Appl
12	785	49.1	323	15	US-10-205-823-34	Sequence 34, Appl
13	760	47.6	485	10	US-09-925-300-1664	Sequence 1664, Ap
14	695.5	43.5	339	10	US-09-974-298-91	Sequence 91, Appl
15	695.5	43.5	339	15	US-10-097-340-6	Sequence 6, Appli
16	695.5	43.5	339	15	US-10-097-340-8	Sequence 8, Appli
17	678	42.4	327	9	US-09-764-853-615	Sequence 615, App
18	675	42.2	332	11	US-09-764-881-110	Sequence 110, App
19	647.5	40.5	319	15	US-10-304-287-2	Sequence 2, Appli
20	622	38.9	373	9	US-09-925-301-888	Sequence 888, App
21	618	38.7	346	10	US-09-919-172-39	Sequence 39, Appl
22	618	38.7	346	10	US-09-974-298-93	Sequence 93, Appl
23	615	38.5	346	12	US-10-316-253-300	Sequence 300, App
24	381.5	23.9	289	9	US-09-925-301-897	Sequence 897, App
25	376.5	23.6	316	10	US-10-219-220-260	Sequence 260, App
26	374.5	23.4	316	10	US-10-219-220-62	Sequence 62, Appl
27	315	19.7	158	9	US-09-925-297-479	Sequence 479, App
28	237.5	14.9	239	15	US-10-219-220-65	Sequence 65, Appl
29	223.5	14.0	319	15	US-10-255-165-56	Sequence 56, Appl
30	223.5	14.0	319	10	US-10-259-165-402	Sequence 402, App
31	221	13.8	184	15	US-10-219-220-66	Sequence 66, Appl
32	218	13.6	336	12	US-10-255-165-290	Sequence 290, App
33	139	8.7	82	10	US-09-925-301-1467	Sequence 1467, Ap
34	139	8.7	46	10	US-09-925-301-30160	Sequence 30160, A
35	122	7.6	12	10	US-10-029-386-30160	Sequence 63, Appl
36	114	7.1	1051	10	US-10-219-220-63	Sequence 63, Appl
37	111.5	7.0	1051	10	US-10-911-888-14	Sequence 14, Appl
38	109	6.8	591	9	US-09-815-242-13002	Sequence 13002, A
39	109	6.8	73	15	US-10-219-220-64	Sequence 64, Appl
40	105	6.6	365	11	US-09-809-391-696	Sequence 696, App
41	105	6.6	365	12	US-09-882-171-696	Sequence 696, App
42	103.5	6.5	662	11	US-09-951-061A-141	Sequence 141, App
43	99	6.2	617	9	US-09-815-242-13228	Sequence 13228, A
44	98.5	6.2	483	10	US-10-316-253-8	Sequence 8, Appli
45	98	6.1	315	9	US-09-925-301-1053	Sequence 1053, Ap

ALIGNMENTS

RESULT 1
US-10-080-370-3

Sequence 3, Application US/10080370
Publication No. US20030166532A1
GENERAL INFORMATION:
APPLICANT: Allison, Anthony
TITLE OF INVENTION: Modified Annexin Proteins and Methods for Preventing Thrombosi
FILE REFERENCE: SURR.90
CURRENT APPLICATION NUMBER: US/10/080,370
CURRENT FILING DATE: 2022-02-21
PRIOR APPLICATION NUMBER: 60/270,402
PRIOR FILING DATE: 2001-02-21
PRIOR APPLICATION NUMBER: 60/332,582
PRIOR FILING DATE: 2001-11-21
NUMBER OF SEQ ID NOS: 9
SOFTWARE: Patentin version 3.1
SEQ ID NO 3
LENGTH: 319
TYPE: PRT
ORGANISM: Homo sapiens
US-10-080-370-3

Query Match   100.0%; Score 1598; DB 12; Length 319;
Best Local Similarity   100.0%; Pred. No. 3.4e-142;
Matches 319; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

Qy   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG 60
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFG 60

Qy   61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   61 RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL 120

Qy 121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVTLLQANRDPDTAIDDAQVELDAQALFQA 180
          |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 121 RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVTLLQANRDPDTAIDDAQVELDAQALFQA 180

```
Qy  181  GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVK  240
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  181  GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVK  240

Qy  241  SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG  300
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  241  SIRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG  300

Qy  301  DTSGDYKKALLLLCGGEDD  319
         |||||||||||||||||||
Db  301  DTSGDYKKALLLLCGGEDD  319
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RESULT 2
US-10-080-370-6
Sequence 6, Application US/10080370
; Publication No. US2003016653A1
; GENERAL INFORMATION:
; APPLICANT: Allison, Anthony
; TITLE OF INVENTION: Modified Annexin Proteins and Methods for Preventing Thrombosis
; FILE REFERENCE: SURR.90
; CURRENT APPLICATION NUMBER: US/10/080,370
; CURRENT FILING DATE: 2002-02-21
; PRIOR APPLICATION NUMBER: 60/270,402
; PRIOR FILING DATE: 2001-02-21
; PRIOR APPLICATION NUMBER: 60/332,582
; PRIOR FILING DATE: 2001-11-21
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 6
; LENGTH: 669
; TYPE: PRT
; ORGANISM: Artificial sequence
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (15)..(15)
; OTHER INFORMATION: The 'Xaa' at location 15 stands for Ser.
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (334)..(334)
; OTHER INFORMATION: The 'Xaa' at location 334 stands for Lys, Asn, Arg, Ser, Thr, Ile
; Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
; Tyr, Trp, Cys, or Phe.
; NAME/KEY: misc_feature
; LOCATION: (351)..(351)
; OTHER INFORMATION: The 'Xaa' at location 351 stands for Lys, Asn, Arg, Ser, Thr, Ile
; Met, Glu, Asp, Gly, Ala, Val, Gln, His, Pro, Leu, a stop codon,
; Tyr, Trp, Cys, or Phe.
; NAME/KEY: misc_feature
; LOCATION: (1051)..(1051)
; OTHER INFORMATION: modified annexin gene
; FEATURE:
; NAME/KEY: misc_feature
; LOCATION: (45)..(45)
; OTHER INFORMATION: n = a, c, g, or t
; LOCATION: (1000)..(1000)
; OTHER INFORMATION: n = a, c, g, or t
; LOCATION: (1002)..(1002)
; OTHER INFORMATION: n = a, c, g, or t
; LOCATION: (351)..(351)
; OTHER INFORMATION: n = a, c, g, or t
; LOCATION: (1051)..(1051)
; OTHER INFORMATION: n = a, c, g, or t
US-10-080-370-6

Query Match   99.7%; Score 1593; DB 12; Length 669;
Best Local Similarity 100.0%; Pred. No. 3e-141;
Matches 318; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy    2  ALRGTVTDFSGFDGRADAEVLRKAMKGLGTEDSILNLLTARSNAQRQQIAEEFKTLFGR   61
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   16  ALRGTVTDFSGFDGRADAEVLRKAMKGLGTEDSILNLLTARSNAQRQQIAEEFKTLFGR   75

Qy   62  DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR  121
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   76  DLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELR  135

Qy  122  AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG  181
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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```
Db  136  AIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAG  195

Qy  182  ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS  241
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  196  ELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKS  255

Qy  242  IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD  301
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  256  IRSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGD  315

Qy  302  TSGDYKKALLLLCGGEDD  319
         ||||||||||||||||||
Db  316  TSGDYKKALLLLCGGEDD  333
```

RESULT 3
US-10-007-761-72
Sequence 72, Application US/10007761
; Publication No. US2002015098A1
; GENERAL INFORMATION:
; APPLICANT: Mochly-Rosen, Daria
; TITLE OF INVENTION: Peptides for Activation and Inhibition of delta-PKC
; FILE REFERENCE: 58600-8208.US00
; CURRENT APPLICATION NUMBER: US/10/007,761
; CURRENT FILING DATE: 2001-11-09
; PRIOR APPLICATION NUMBER: US 60/262,060
; PRIOR FILING DATE: 2001-01-18
; NUMBER OF SEQ ID NOS: 72
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 72
; LENGTH: 320
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-007-761-72

Query Match   90.8%; Score 1451.5; DB 14; Length 320;
Best Local Similarity   91.5%; Pred. No. 2.1e-128;
Matches 299; Conservative 12; Mismatches 14; Indels 1; Gaps 1;

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Qy    3  LRGTVTDFSGFDGRADAEVLRKAMKGLGTEDSILNLLTARSNAQRQQIAEEFKTLFGRD   61
         |||||||||||||||||||:|||:|||||||||||||||||||||||||||||||||||
Db    5  LRGTVTDFPGFDGRADAEVLRKAMKGLGTEDSILTLLTSRSNAQRQBISAAFKTLFGRD   64

Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   65  LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTNEKVLTEIIASRTPEELRA  124

Qy  123  IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE  182
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  125  IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE  184

Qy  183  LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI  242
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  185  LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI  244

Qy  243  RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db  245  RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  304

Qy  303  SGDYKKALLLLCGGEDD  319
         |||||||||:||| |||
Db  305  SGDYKKALLLLC-GEDD  320
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RESULT 4
US-09-970-969-2
Sequence 2, Application US/09970969
; Patent No. US2002010334A1
; GENERAL INFORMATION:
; APPLICANT: Tait, Jonathan F.
; APPLICANT: Brown, David S.
; TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites

```
; FILE REFERENCE: uofw-1-13841
; CURRENT APPLICATION NUMBER: US/09/970,969
; CURRENT FILING DATE: 2001-10-03
; NUMBER OF SEQ ID NOS: 6
; SOFTWARE: Patentin Ver. 2.0
;
; SEQ ID NO 2
;   LENGTH: 327
;   TYPE: PRT
;   ORGANISM: Homo sapiens
US-09-970-969-2

Query Match     90.3%; Score 1442.5; DB 10; Length 327;
Best Local Similarity     91.2%; Pred. No.1.6e-127;
Matches 289; Conservative 12; Mismatches 15; Indels 1; Gaps 1;

Qy   3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQCIAEEFKTLFGRD  62
         ||||||| |||||||||||||||||||||||||||:|||||||||:||| |||||||||
Db  12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD  71

Qy  63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLKGAGTDEKVLTEIIASRTPEELRA 122
         |:|:|||||||||||||||||||||||||||||||:| |||:||||||||||||||||||
Db  72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 131

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||:||||||| ||||||||:||||||||||||||||||:| :|:|||:|||||||||||
Db 132 IKQVYEEEYGSSLEDDVVGDISGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 191

Qy 183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         |||||||||||||||||||||||:||||||||||||||||||||||||||:||||||||
Db 192 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 251

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 252 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 311

Qy 303 SGDYKKALLLLCGGEDD 319
         ||||||||||| ||||
Db 312 SGDYKKALLLL-SGEDD 327


RESULT 5
US-09-970-969-4
Sequence 4, Application US/09970969
Patent No. US20020103341A1
GENERAL INFORMATION:
   APPLICANT: Tait, Jonathan F.
   APPLICANT: Brown, David S.
   TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites
   FILE REFERENCE: uofw-1-13841
   CURRENT APPLICATION NUMBER: US/09/970,969
   CURRENT FILING DATE: 2001-10-03
   NUMBER OF SEQ ID NOS: 6
   SOFTWARE: Patentin Ver. 2.0
;
   SEQ ID NO 4
   LENGTH: 327
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-970-969-4

Query Match     90.3%; Score 1442.5; DB 10; Length 327;
Best Local Similarity     91.2%; Pred. No.1.6e-127;
Matches 289; Conservative 12; Mismatches 15; Indels 1; Gaps 1;

Qy   3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQCIAEEFKTLFGRD  62
         ||||||| |||||||||||||||||||||||||||:|||||||||:||| |||||||||
Db  12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD  71

Qy  63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLKGAGTDEKVLTEIIASRTPEELRA 122
         |:|:|||||||||||||||||||||||||||||||:| |||:||||||||||||||||||
Db  72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 131

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||:||||||| ||||||||:||||||||||||||||||:| :|:|||:|||||||||||
Db 132 IKQVYEEEYGSSLEDDVVGDISGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 191

Qy 183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         |||||||||||||||||||||||:||||||||||||||||||||||||||:||||||||
Db 192 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 251

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 252 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 311

Qy 303 SGDYKKALLLLCGGEDD 319
         ||||||||||| ||||
Db 312 SGDYKKALLLL-SGEDD 327


RESULT 6
US-09-970-969-6
Sequence 6, Application US/09970969
Patent No. US20020103341A1
GENERAL INFORMATION:
   APPLICANT: Tait, Jonathan F.
   APPLICANT: Brown, David S.
   TITLE OF INVENTION: Annexin Derivatives with Endogenous Chelation Sites
   FILE REFERENCE: uofw-1-13841
   CURRENT APPLICATION NUMBER: US/09/970,969
   CURRENT FILING DATE: 2001-10-03
   NUMBER OF SEQ ID NOS: 6
   SOFTWARE: Patentin Ver. 2.0
;
   SEQ ID NO 6
   LENGTH: 327
   TYPE: PRT
   ORGANISM: Homo sapiens
US-09-970-969-6

Query Match     90.3%; Score 1442.5; DB 10; Length 327;
Best Local Similarity     91.2%; Pred. No.1.6e-127;
Matches 289; Conservative 12; Mismatches 15; Indels 1; Gaps 1;

Qy   3 LRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQCIAEEFKTLFGRD  62
         ||||||| |||||||||||||||||||||||||||:|||||||||:||| |||||||||
Db  12 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD  71

Qy  63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLKGAGTDEKVLTEIIASRTPEELRA 122
         |:|:|||||||||||||||||||||||||||||||:| |||:||||||||||||||||||
Db  72 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA 131

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||:||||||| ||||||||:||||||||||||||||||:| :|:|||:|||||||||||
Db 132 IKQVYEEEYGSSLEDDVVGDISGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 191

Qy 183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         |||||||||||||||||||||||:||||||||||||||||||||||||||:||||||||
Db 192 LKWGTDEEKFITILGTRSVSHLRKVFDKYMTISGFQIEETIDRETSGNLEQLLLAVVKSI 251

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db 252 RSIPAYLAETLYYAMKGAGTDDHTLIRVMVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT 311

Qy 303 SGDYKKALLLLCGGEDD 319
         ||||||||||| ||||
Db 312 SGDYKKALLLL-SGEDD 327


RESULT 7
US-10-097-340-10
Sequence 10, Application US/10097340
Publication No. US20030087250A1
GENERAL INFORMATION:
   APPLICANT: John MONAHAN
   APPLICANT: Marjula GANNAVARAPU
   APPLICANT: Sebastian HOERSCH
   APPLICANT: Shubhangi KAMATKAR
   APPLICANT: Steve G. KOVATS
```

; APPLICANT: Rachel E. MEYERS
; APPLICANT: Michael MORRISEY
; APPLICANT: Peter OLANDT
; APPLICANT: Ami SEN
; APPLICANT: Peter VEIBY
; APPLICANT: Gordon B. MILLS
; APPLICANT: Robert C. BAST, Jr.
; APPLICANT: Karen LU
; APPLICANT: Rosemarie SCHMANDT
; APPLICANT: Xunei ZHAO
; APPLICANT: Karen GUATT
; TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
; TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
; FILE REFERENCE: MRI-030
; CURRENT APPLICATION NUMBER: US/10/097,340
; CURRENT FILING DATE: 2002-03-14
; PRIOR APPLICATION NUMBER: 60/276,025
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/325,149
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/276,026
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/324,967
; PRIOR FILING DATE: 2001/09/26
; PRIOR APPLICATION NUMBER: 60/311,732
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: 60/325,102
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/323,580
; PRIOR FILING DATE: 2001-09-19
; NUMBER OF SEQ ID NOS: 363
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 10
; LENGTH: 321
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-097-340-10

Query Match   57.6%; Score 921; DB 15; Length 321;
Best Local Similarity 57.3%; Pred. No. 2e-78;
Matches 180; Conservative 56; Mismatches 78; Indels 0; Gaps 0;

Qy   5 GTIVDFPSGPDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRDLV 64
          |||| ::|: | :|:|| ||||||||||:::::|:| ::| |||||:   :::| :||
Db   8 GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRTAYKSTIGRDLI 67

Qy   65 NDMKSELTGKFEKLIVALMKFSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 124
Db   68 DDLKSELSGNFEQVIVGMMTPTVLYDVQELRRAMKGAGTDEGCLIEILASRTPEEIRRIS 127

Qy 125 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELK 184
Db 128 QTYQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDLYEAGEKK 187

Qy 185 WGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVKSIRS 244
Db 188 WGTDEVKFLTVLCSRNRNHLLHVFDEYKRISQKDIEQSIKSETSGSFEDALLAIVKCMRN 247

Qy 245 IPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRNFATSLYSMIKGDTSG 304
Db 248 KSAYFAEKLYKSMKGLGTDDNTLIRVMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG 307

Qy 305 DYKKALLLLCGGED 318
Db 308 DYRKVLVLVLCGGDD 321

RESULT 8
US-09-925-301-1062
; Sequence 1062, Application US/09925301
; Patent No. US20020005208A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA106
; CURRENT APPLICATION NUMBER: US/09/925,301
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/055882
; PRIOR FILING DATE: 2000-03-08
; PRIOR APPLICATION NUMBER: 60/124,270
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 1694
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 1062
; LENGTH: 324
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-925-301-1062

Query Match   57.6%; Score 921; DB 9; Length 324;
Best Local Similarity 57.3%; Pred. No. 2e-78;
Matches 180; Conservative 56; Mismatches 78; Indels 0; Gaps 0;

Qy   5 GTIVDFPSGPDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRDLV 64
Db   11 GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRTAYKSTIGRDLI 70

Qy   65 NDMKSELTGKFEKLIVALMKFSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 124
Db   71 DDLKSELSGNFEQVIVGMMTPTVLYDVQELRRAMKGAGTDEGCLIEILASRTPEEIRRIS 130

Qy 125 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELK 184
Db 131 QTYQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDLYEAGEKK 190

Qy 185 WGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLAVVKSIRS 244
Db 191 WGTDEVKFLTVLCSRNRNHLLHVFDEYKRISQKDIEQSIKSETSGSFEDALLAIVKCMRN 250

Qy 245 IPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRNFATSLYSMIKGDTSG 304
Db 251 KSAYFAEKLYKSMKGLGTDDNTLIRVMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG 310

Qy 305 DYKKALLLLCGGED 318
Db 311 DYRKVLVLVLCGGDD 324

RESULT 9
US-09-925-302-731
; Sequence 731, Application US/09925302
; Patent No. US2002004941A1
; GENERAL INFORMATION:
; APPLICANT: Rosen et al.
; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA104
; CURRENT APPLICATION NUMBER: US/09/925,302
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/05918
; PRIOR FILING DATE: 2000-03-08
; PRIOR APPLICATION NUMBER: 60/124,270
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 896
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 731
; LENGTH: 208
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-925-302-731

Query Match   55.4%; Score 886; DB 9; Length 208;
Best Local Similarity 88.4%; Pred. No. 2.1e-75;
Matches 176; Conservative 10; Mismatches 13; Indels 0; Gaps 0;

Qy   3 LRGTIVDFPSGPDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRD 62

RESULT 10
US-10-236-031B-18

; Sequence 18, Application US/10236031B
; Publication No. US2003021976OA1
; GENERAL INFORMATION:
; APPLICANT: Gordon, Gavin J.
; APPLICANT: Jensen, Roderick V.
; APPLICANT: Gullans, Steven R.
; APPLICANT: Bueno, Raphael
; TITLE OF INVENTION: Diagnostic and Prognostic Tests
; FILE REFERENCE: B00801/70265 (JRV/JAV)
; CURRENT APPLICATION NUMBER: US/10/236,031B
; CURRENT FILING DATE: 2002-09-05
; PRIOR APPLICATION NUMBER: US 60/317,389
; PRIOR FILING DATE: 2001-09-05
; PRIOR APPLICATION NUMBER: US 60/407,431
; PRIOR FILING DATE: 2002-08-30
; NUMBER OF SEQ ID NOS: 102
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 18
; LENGTH: 327
; TYPE: PRT
; ORGANISM: Homo sapiens

US-10-236-031B-18

Query Match   51.8%;   Score 822.5; DB 12;   Length 327;
Best Local Similarity 56.9%;   Pred. No. 3.9e-69;
Matches 178; Conservative 44; Mismatches 90; Indels 1; Gaps 1;

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Db    8  LRGTVTDFPGFPGDRADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD   67
Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA   122
Db   68  LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTNEKVLTEIIASRTPEELRA   127
Qy  123  IKQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE   182
Db  128  IKQYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE   187
Qy  183  LKWGTDEEKFIIILGTRSV   201
Db  188  LKWGTDEEKFIIILGTRSV   206
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RESULT 11
US-10-316-253-262

; Sequence 262, Application US/10316253
; Publication No. US2003016270GA1

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Qy    6  TVTDFPGFPGDRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQIAEEFKTLFGRDLVN   65
Db   14  TVKSSSHHNPDDAEYLYKAMKGIGTNEQAIIDVLTKRSNTQRQQIAKSFKAQFGKDLIE    73
Qy   66  DMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIKQ  125
Db   74  TLKSELSGKFERLIVALMYPPYYEAKELHDAMKGLGTGVIEIIASRTKNQLREIMK      133
Qy  126  AYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDP-DTAIDDAQVELDAQALFQAGELK   184
Db  134  AYEEDYGSSLEEDIQADTSGYIERILVCLLQGSRDDVSSFVDPALALQDAQDLYAAGEKI  193
Qy  185  WGTDEEKFITILGTRSYSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRS  244
Db  194  RGTDEMKFITILLCTRSARTHLLRVFEEYEVEKIANKSIEDSIKSETHGSLEEAMLTVVKCTQN  253
Qy  245  IPAYLAETLIYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSG  304
Db  254  LHSYFAARLYYAMKGAGTRDGTLIRNIVSRSEIDLNLIKCHFKXKOYGKTLSSMIMEDTSG  313
Qy  305  DYKKALLLLCGGE  317
Db  314  DYKNALSLVGSD   326
```

; GENERAL INFORMATION:
; APPLICANT: The Procter & Gamble Company
; APPLICANT: Peters, Kevin
; APPLICANT: Thompson, Larry
; APPLICANT: Wang, Feng
; APPLICANT: Greis, Kenneth
; TITLE OF INVENTION: Angiogenesis Modulating Proteins
; FILE REFERENCE: 8865M
; CURRENT APPLICATION NUMBER: US 60/355,295
; CURRENT FILING DATE: 2002-02-08
; PRIOR APPLICATION NUMBER: US/10/316,253
; PRIOR FILING DATE: 2002-12-10
; NUMBER OF SEQ ID NOS: 308
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 262
; LENGTH: 324
; TYPE: PRT
; ORGANISM: Rattus norvegicus

US-10-316-253-262

Query Match   49.2%;   Score 787; DB 12;   Length 324;
Best Local Similarity 48.6%;   Pred. No. 8.5e-66;
Matches 153; Conservative 64; Mismatches 98; Indels 0; Gaps 0;

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Qy    4  RGTVTDFPGFPGDRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQEISAAFKTLFGRDL   63
Db   10  RGTINNYPGFNPSVDEAIRKAIKGITGTDEKTLININLLTERSNAQRQLIVKHIQEAYEQAL   69
Qy   64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI   123
Db   70  KADLKGDLSGHFEHWNVALITAPAVFDAKQLKKSMRGMGTDEDTLIEILTTRSRQMKEI    129
Qy  124  KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL   183
Db  130  SQAYYTAYKKNLRDDISSETSGDFRKALLTLADGGRDESLKVDEHLAKKDAQTLYDAGEK  189
Qy  184  KWGTDEEKFIIILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR  243
Db  190  KWGTDEDKFIEILCLRSFPQLKLIFDEYRNISQKDIEDSIKGELSGHFEDLLLAVVRCTR  249
Qy  244  SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS  303
Db  250  NTPAFLAGRLHQALKGAGTDEFTLNRIMVSRSEIDLLDIRREFKKHYYGCSLYSAIQSDTS  309
Qy  304  GDYKKALLLLCGGED  318
Db  310  GDYRTVLLKICGGDD  324
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RESULT 12
US-10-205-823-34

; Sequence 34, Application US/10205823
; Publication No. US2003010896A1
; GENERAL INFORMATION:
; APPLICANT: Schlegel, Robert
; APPLICANT: Monahan, John E.
; APPLICANT: Endege, Wilson O.
; APPLICANT: Gannavarapu, Manjula
; APPLICANT: Gorbatcheva, Bella
; APPLICANT: Hoersch, Sebastian
; APPLICANT: Kamatkar, Shubhangi
; APPLICANT: Monsey, Angela M.
; APPLICANT: Glatt, Karen
; APPLICANT: Zhao, Xumei
; APPLICANT: Anderson, Dustin
; TITLE OF INVENTION: NOVEL GENES, COMPOSITIONS, KITS, AND
; TITLE OF INVENTION: METHODS FOR IDENTIFICATION, ASSESSMENT, PREVENTION, AND
; TITLE OF INVENTION: THERAPY OF PROSTATE CANCER
; FILE REFERENCE: MRI-044
; CURRENT APPLICATION NUMBER: US/10/205,823
; CURRENT FILING DATE: 2002-07-25
; PRIOR APPLICATION NUMBER: US 60/307,982
; PRIOR FILING DATE: 2001-07-25

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; PRIOR APPLICATION NUMBER: 60/314,356
; PRIOR FILING DATE: 2001-08-22
; PRIOR APPLICATION NUMBER: 60/325,020
; PRIOR FILING DATE: 2001-09-25
; PRIOR APPLICATION NUMBER: 60/341,746
; PRIOR FILING DATE: 2001-12-12
; PRIOR APPLICATION NUMBER: 60/362,158
; PRIOR FILING DATE: 2002-03-05
; PRIOR FILING DATE: 2002-03-05
; NUMBER OF SEQ ID NOS: 455
; SOFTWARE: FastSEQ for Windows Version 4.0
;
; SEQ ID NO 34
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-205-823-34

Query Match             49.1%;  Score 785;  DB 15;  Length 323;
Best Local Similarity   48.3%;  Pred. No. 1.3e-65;
Matches  152;  Conservative  68;  Mismatches  95;  Indels  0;  Gaps  0;

Qy    4 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPELRAI 123
         :|| |::::|||| |:|:||| || :::||::|:|:||||||||||||||||:|::|||
Db    9 RGTVRDYPDPSPSVDAEALQKAIRGIGTDEKMLISILTERSNAQRQLIVKEYQAAYGKEL 68

Qy    4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEFKTLFGRDL 63
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    9 RGTVRDYPDPSPSVDAEALQKAIRGIGTDEKMLISILTERSNAQRQLIVKEYQAAYGKEL 68

Qy   64 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQAGEL 183
         |:|||:||||||||||:::|::|||:|:|||||||||:|||||||:|||||||||||
Db   69 KDLLKGDLSGHFEHLMVALVTPAVFDAKQLKKSMKGAGTDEKVLTEIIASRTPELRAI 128

Qy  124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQAGEL 183
         |||:::|::|||::|||||||||||::|||||||||:::::||||:|||||||::|||
Db  129 SQAYTVYKKSLGDDISSETSGDFPKALILTLADGRRDESLKVDEHLAKQDAQILYKAGEN 188

Qy  184 KWGTDEEKFITILGTRSVSHLRVPDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
         ||||||||||||||||||||||||:|:|||:|||::|||||||||:|||:|||:||||
Db  189 RWGTDEDKFTEILCLRSFPQLKITFDEYRNISQKCDIVDSIKGELSGHFEDLLLAIVNCVR 248

Qy  244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
         |:|||||::|||||||||:|:::||::::|::|::|||||||||||||||||||||||
Db  249 NTPAFLAERLHRALKGIGTDEFTLNRIMVSRSEIDLLDIIRTEFKKHYGYSLYSAIKSDTS 308

Qy  304 GDYKKALILLCGGED 318
         |||:|||||||:||
Db  309 GDYEITLLIKICGGDD 323
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RESULT 13
US-09-925-300-1664
; Sequence 1664, Application US/0925300
; Patent No. US2002015681A1
; GENERAL INFORMATION:
; APPLICANT: Craig Rosen,
; APPLICANT: Steve Ruben
; TITLE OF INVENTION: Nucleic Acids, Proteins and Antibodies
; FILE REFERENCE: PA101
; CURRENT APPLICATION NUMBER: US/09/925,300
; CURRENT FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: PCT/US00/05988
; PRIOR FILING DATE: 2000-03-08
; PRIOR APPLICATION NUMBER: 60/124,270
; PRIOR FILING DATE: 1999-03-12
; NUMBER OF SEQ ID NOS: 1890
; SOFTWARE: PatentIn Ver. 2.0
;
; SEQ ID NO 1664
; LENGTH: 485
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-925-300-1664

Query Match             47.6%;  Score 760;  DB 10;  Length 485;
Best Local Similarity   47.8%;  Pred. No. 5.3e-63;
Matches  149;  Conservative  66;  Mismatches  97;  Indels  0;  Gaps  0;

Qy    4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEFKTLFGRDL 63
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Db  173 QGTIRPAANFDA.IRDAEILRKAMKGFGTDEQAIVDVVVANSNDQROKIKAAFKTSYGKDL 232
         :||: |:| ||||| ||:|:|||||::||: |:|:|:: |: ::: |||
Db   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPELRAI 123
         :|||:||| ||||||||:|||::|||||||||||||||||||||||||||||||||||
Qy  233 IKILKSELSGNMEELILALFMPPTYDAWSIRKAMQGAGTDEKVLTEIIASRTPELRAI 292

Qy  124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDTAIDDAQVELDAQALFQAGEL 183
         |:|||:||:|||::|||||||||||:|||||||||||:::||||:||||||||||||
Db  293 VRCYQSEFGRDLEKDIRSDTSGHFERLLVSMCQGNRDENQSINHQMAQEDAQRLYQAGEG 352

Qy  184 KWGTDEEKFITILGTRSVSHLRVPDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
         ||||||||:|::|||||||||||||:|:||||||::|||||||||:||||:|:||||
Db  353 RLGTIDESCFNMILATRSFPQLRATMEAYSRMANRDLLSSVSREFSGYVESGLKTILQCAL 412

Qy  244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
         |:||||||||||||||||:|:::||||||||||||||||||||||||||||||||||
Db  413 NRPAFFAARLYYAMKGAGTDDSTLVRIVVTRSEIDLVQIKQMFAQMYQKTLGTMIAGDTS 472

Qy  304 GDYKKALILLCGG 315
         ||||:||||||
Db  473 GDYRLLLAIVG 484
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RESULT 14
US-09-974-298-91
; Sequence 91, Application US/0974298
; Patent No. US2002015263A1
; GENERAL INFORMATION:
; APPLICANT: Chen, Huei-Mei
; TITLE OF INVENTION: GENES EXPRESSED IN BREAST CANCER
; FILE REFERENCE: PA-0037 P
; CURRENT APPLICATION NUMBER: US/09/974,298
; CURRENT FILING DATE: 2001-10-04
; PRIOR APPLICATION NUMBER: 60/238,331
; PRIOR FILING DATE: 2000-05-10
; NUMBER OF SEQ ID NOS: 194
; SOFTWARE: PERL Program
;
; SEQ ID NO 91
; LENGTH: 339
; TYPE: PRT
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: misc_feature
; OTHER INFORMATION: Incyte ID No. US2002015263A1 1378745CD1
US-09-974-298-91

Query Match             43.5%;  Score 695.5;  DB 10;  Length 339;
Best Local Similarity   45.4%;  Pred. No. 3.7e-57;
Matches  143;  Conservative  67;  Mismatches  104;  Indels  1;  Gaps  1;

Qy    5 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSINLLTARSNAQRQIAEEFKTLFGRDLV 64
         |:|| |||||||||||||||||||||||||||||||||||||||||||||||:||:
Db   25 GSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNILTNRSNAQRQDIAFAYQRRTKKELA 84

Qy   65 NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPELRAIK 124
         |||||||| ||:||||:|||:|||||||:||| :|:||||| |::|::||:|||::
Db   85 SALKSALSGHLETVILGLLKTPAQYDASELKASMKGLGTDEDSLIEIICSRTNQELQBIN 144

Qy  125 QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRPDD-TAIDDAQVELDAQALFQAGEL 183
         |||:||||:||:||:::||:|||:|:|||||||||||  :||||||:||||||||||||
Db  145 RVYKEMYKIVDLEKDIISDTSGDRKLMVALARGRRAPEDGSVIDYELIDQDARDLYDPAGVK 204

Qy  184 KWGTDEEKFITILGTRSVSHLRRVFDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
         ||||||||:|||||||||:|||:||:||::|||||::||:||||||:|||:|::||||
Db  205 RKGTDVPKWISIMTERSVPHLQKVFDRYKSYSPYDMLESIRKEVKGDLENAFLNLVQCIQ 264

Qy  244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
         |:|||||||||||||||||:|::||||||||||||||||||||:||||||||||:||
Db  265 NKPLYFADRLYDSMKGKGTRDKVLIRIMVSREVDMLKIRSEFKRRYGKSLYYIQQDTK 324

Qy  304 GDYKKALILLCGGED 318
         ||||:|||||:|||
Db  304 GDYKKALILLCGGED 318
```

```
Db        325  GDYQKALLYLCGGDD 339
```

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Db        265  NKPLYFADRLYDSMKGKGTRDKVLIRIMVSRSEVDMLKIRSEFKRKYGKSLYYYIQQDTK 324
               |:|| ||||  | ||||||  :|
Qy        304  GDYKKALLLLCGGED 318
               ||||:|||| ||||:|
Db        325  GDYQKALLYLCGGDD 339

Search completed: December 12, 2003, 14:54:31
Job time: 18.7581 secs
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RESULT 15
US-10-097-340-6

Sequence 6, Application US/10097340
; Publication No. US20030087250A1
; GENERAL INFORMATION:
; APPLICANT: John MONAHAN
; APPLICANT: Manjula GANNAVARAPU
; APPLICANT: Sebastian HOERSCH
; APPLICANT: Shubhangi KAMATKAR
; APPLICANT: Steve G. KOVATS
; APPLICANT: Rachel E. MEYERS
; APPLICANT: Michael MORRISEY
; APPLICANT: Peter OLANDT
; APPLICANT: Rosemarie SCHMANDT
; APPLICANT: Xumei ZHAO
; APPLICANT: Karen GLATT
; APPLICANT: Ami SEN
; APPLICANT: Peter VEIBY
; APPLICANT: Gordon B. MILLS
; APPLICANT: Robert C. BAST, Jr.
; APPLICANT: Karen LU
; TITLE OF INVENTION: Nucleic Acid Molecules and Proteins For The Identification,
; TITLE OF INVENTION: Assessment, Prevention, and Therapy of Ovarian Cancer
; FILE REFERENCE: MRI-030
; CURRENT APPLICATION NUMBER: US/10/097,340
; CURRENT FILING DATE: 2002-03-14
; PRIOR APPLICATION NUMBER: 60/276,025
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/325,149
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/276,026
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/324,967
; PRIOR FILING DATE: 2001/09/26
; PRIOR APPLICATION NUMBER: 60/311,732
; PRIOR FILING DATE: 2001-08-10
; PRIOR APPLICATION NUMBER: 60/325,102
; PRIOR FILING DATE: 2001-09-26
; PRIOR APPLICATION NUMBER: 60/323,580
; PRIOR FILING DATE: 2001-09-19
; NUMBER OF SEQ ID NOS: 363
; SOFTWARE: FastSEQ for Windows Version 4.0
;
; SEQ ID NO 6
;   LENGTH: 339
;   TYPE: PRT
;   ORGANISM: Homo sapiens

US-10-097-340-6

Query Match    43.5%; Score 695.5; DB 15; Length 339;
Best Local Similarity   45.4%; Pred. No. 3.7e-57;
Matches 143; Conservative   67; Mismatches 104; Indels     1; Gaps     1;

Qy      5  GTVTDFSGFGDGRADAEVLRKAMKGLGTDEDSIILNLLTARSNAQRQQIAEEFKTLFGRDLV 64
           |:|:  | ::  |||  : : ||:||:|:  :|:|:| |:||||:||:|||||:|||||:||
Db     25  GSVKAYTNFDAERDALNIETAIKTKGVDEVTIVNILTNRSNAQRQDIAFAYQRRTKKELA 84

Qy     65  NDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAIK 124
           |:|| :|| ||:|||||| || ||||||||| |  | | ||| ||:|||:|||||: ||:
Db     85  SALKSALSGHLETVILGILKTPAQYDASELKASMKGLGTDEDSLIEIICSRTNQELQEIN 144

Qy    125  QAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPD-TAIDDAQVELDAQALFQAGEL 183
           ||| || |||:||   |||:|::|||::|| || || :  |::||  ||| :||| || :
Db    145  RVYKEMYKTDLEKDIISDTSGDFRKLMVALAKGRRAEDGSVIDYELIDQDARDLYDAGVK 204

Qy    184  KWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
           |||||||| |:|| |:|||||| |||:|::||||:|||:|||:||||| |||||:|| |:
Db    205  RKGTDVPKKISIMTERSVPHLQKVFDRYKSYSPYDMLESIREEVKGDLENAFLNLVQCIQ 264

Qy    244  SIPAYLAETLYYAMKGAGTDDDHTLIRVLVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
           |: | | |:|| | || | |  ||:|:|:  :||:::|    | : :| |: ||: |    ||
Db        : ||:| || |||| |: || |  ||:|:|: ||::::|    | : :| |: ||: |  ||
```

OM protein - protein search, using sw model

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Run on: December 12, 2003, 14:47:48 ; Search time 10.6549 Seconds
           (without alignments)
           2879.232 Million cell updates/sec

Title: PCT-US03-24332-3
Perfect score: 1598
Sequence: 1 MALRGTVTDFSGFDGRADAE.........GDTSGDYKKALLLCGGEDD 319

Scoring table: BLOSUM62
              Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0
Maximum DB seq length: 200000000000

Post-processing: Minimum Match 0%
                Maximum Match 100%
                Listing first 45 summaries

Database :   PIR_76:*
              1: pir1:*
              2: pir2:*
              3: pir3:*
              4: pir4:*

Pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1585	99.2	319	1	LURT5	annexin V - rat
2	1467	91.8	320	1	S27214	annexin V - bovine
3	1451.5	90.8	320	1	AQHUP	annexin V [validat
4	1257	78.7	321	1	LICH5	annexin V - chicke
5	934	58.4	673	1	S52844	annexin VI - rat
6	933	58.4	673	1	S01786	annexin VI - mouse
7	921	57.6	673	1	A42077	annexin VI - human
8	919	57.5	673	1	AQHU68	annexin VI [valida
9	916	57.3	319	1	LUBO4	annexin IV - bovin
10	916	57.3	319	1	LUPG4	annexin IV - pig
11	915	57.3	318	2	JC2029	annexin IV - chicken
12	898	56.2	671	1	LURB1	annexin XI - rabbi
13	876	54.8	503	1	LUBO1l	annexin XI form A
14	870	54.4	503	1	S23447	annexin XI form B
15	870	54.4	505	2	AS3152	annexin XI - human
16	858	53.7	505	2	LUHU8	annexin VIII - hum
17	822.5	51.5	327	1	LURT3	annexin III - rat
18	792	49.6	324	1	LUHU3	annexin III - huma
19	785	49.1	323	1	LUMS3	annexin III - mous
20	763	47.7	463	2	S29170	annexin VII - mous
21	760	47.6	488	1	LUHU7	annexin VII, long
22	718	44.9	316	1	LUUF12	annexin XIII - Hydr
23	695.5	43.5	339	1	LUHU36	annexin II - human
24	695.5	43.5	339	2	S33700	annexin II - rat
25	692	43.3	676	2	S41022	hypothetical prote
26	691.5	43.3	339	1	LUBO36	annexin II - bovin
27	688.5	43.1	339	1	LUMS36	annexin II - mouse
28	684.5	42.8	339	1	S55277	annexin II - rat
29	683.5	42.8	341	2	JQ1298	annexin II type 2
28	683.5	42.8	340	1	JQ1297	annexin II type 1
30	680.5	42.6	339	1	LUCH2	annexin II - chick
31	676	42.3	512	2	S70644	annexin VII - Afri
32	675	42.2	296	1	LUFF9	annexin IX - fruit
33	673	42.1	316	1	LUHU1S	annexin XIII, inte
34	671	42.0	321	1	LUFF10	annexin X - fruit
35	665	41.6	316	2	A57076	annexin XIIIa - do
36	665	41.6	357	2	B57076	annexin XIIIb - do
37	652	40.8	346	1	LUGP1	annexin I - guinea
38	626	39.2	346	1	S28228	annexin I - rat
39	622	38.9	346	1	LUHU	annexin I - human
40	620	38.8	346	1	LUMS1	annexin I - mouse
41	615	38.5	346	1	LURT1	annexin I - rat
42	613	38.4	343	1	A44118	annexin I type 2
43	596.5	37.3	322	2	E88452	annexin ZC155.1 [l
44	570.5	35.7	341	1	LUPY1	annexin I type 1 -
45	534.5	33.4	462	1	LUDO7	annexin VII - slim

ALIGNMENTS

RESULT 1
LURT5
annexin V - rat
N;Alternate names: endonexin II; lipocortin V; placental anticoagulant protein; place
C;Species: Rattus norvegicus (Norway rat)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992 #text_change 22-Jun-1999
C;Accession: C29250; S66680
R;Pepinsky, R.B.; Tizard, R.; Mattaliano, R.J.; Sinclair, L.K.; Miller, G.T.; Brownin
J. Biol. Chem. 263, 10799-10811, 1988
A;Title: Five distinct calcium and phospholipid binding proteins share homology with
A;Reference number: A92659; MUID:88273202; PMID:2968983
A;Accession: C29250
A;Molecule type: mRNA
A;Residues: 1-319 <PEP>
A;Cross-references: GB:M21730; NID:g205138; PIDN:AAA41512.1; PID:g205139
R;Imai, Y.; Kohsaka, S.
Eur. J. Biochem. 232, 327-334, 1995
A;Title: Structure of rat annexin V gene and molecular diversity of its transcripts.
A;Reference number: S66680; MUID:96035863; PMID:7556178
A;Accession: S66680
A;Status: preliminary; translation not shown
A;Molecule type: DNA
A;Residues: 1-319 <IMA>
A;Cross-references: EMBL:D42136
C;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospho
derstood.
C;Comment: Annexin V has been proposed to play a role in the inhibition of blood coag
olipid-binding rather than proteolytic inactivation. It does not affect thrombin-depe
C;Genetics:
A;Introns: 1/3; 30/1; 61/3; 99/3; 130/1; 156/3; 175/3; 207/1; 239/1; 258/3; 299/3
C;Superfamily: annexin II; annexin repeat homology
C;Keywords: calcium binding; duplication; endonexin fold; membrane-associated protein
F;2-319/Product: annexin V #status predicted <MAT>
F;16-87/Domain: annexin repeat homology <AX1>
F;27-43/Region: endonexin fold #status predicted
F;88-159/Domain: annexin repeat homology <AX2>
F;99-115/Region: endonexin fold #status predicted
F;171-243/Domain: annexin repeat homology <AX3>
F;183-199/Region: endonexin fold #status predicted
F;247-318/Domain: annexin repeat homology <AX4>
F;258-274/Region: endonexin fold #status predicted
F;26,29,30,70/Binding site: calcium, high affinity (Met, Gly, Gly, Glu) #status predi
F;31,33,34/Binding site: calcium, low affinity (Thr, Glu, Asp) #status predicted
F;71,76/Binding site: calcium, low affinity (Leu, Glu) #status predicted
F;98,100,102,142/Binding site: calcium, high affinity (Leu, Gly, Gly, Asp) #status pr
F;257,259,261,301/Binding site: calcium, high affinity (Met, Gly, Gly, Asp) #status f

Query Match   99.2%;   Score 1585; DB 1; Length 319;
Best Local Similarity 99.4%; Pred. No. 5.1e-96;
Matches 317; Conservative 0; Mismatches 2; Indels 0; Gaps 0;

Qy   1 MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEFKTLFG 60

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Db    1  MALRGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSIILNLLTARSNAQRQEIAEEFKTLFG   60
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Db   61  RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL  120
         ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy   61  RDLVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEEL  120
Db  121  RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQLFQA   180
         |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Qy  121  RAIKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQLFQA   180
Db  181  GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITDRETSGNLENLLLAVVK  240
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Qy  181  GELKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITDRETSGNLENLLLAVVK  240
Db  241  SIRSIPAYLAETLLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG  300
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Qy  241  SIRSIPAYLAETLLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKG  300
Db  301  DTISGDYKKALLLLCGGEDD  319
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Qy  301  DTISGDYKKALLLLCGGEDD  319
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RESULT 2
S27214
annexin v - bovine
N;Alternate names: CaBP33; CaBP37
C;Species: Bos primigenius taurus (cattle)
C;Date: 08-Jun-1994 #sequence_revision 10-Feb-1995 #text_change 26-Feb-1999
C;Accession: S27214; S27215
R;Learmonth, M.P.; Howell, S.A.; Harris, A.C.M.; Amess, B.; Patel, Y.; Giambanco, I.; Bi...
Biochim. Biophys. Acta 1160, 76-83, 1992
A;Title: Novel isoforms of CaBP 33/37 (Annexin V) from mammalian brain: structural and ...
A;Reference number: S27214; MUID:93041974; PMID:1420335
A;Accession: S27214
A;Molecule type: protein
A;Residues: 1-320 <LEA>
A;Accession: S27215
A;Molecule type: protein
A;Residues: 1-35,'T',37-124,'B',126-320 <LE2>
A;Note: It is uncertain whether the sequence differences are due to allelic variation or...
A;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospholi...
derstood.
C;Comment: Annexin V has been proposed to play a role in the inhibition of blood coagula...
olipid-binding rather than proteolytic inactivation. It does not affect thrombin-depende...
C;Superfamily: annexin I; annexin repeat homology <AX1>
C;Keywords: acetylated amino end; anticoagulant; calcium binding; duplication; endonexin...
F;17-88/Domain: annexin repeat homology <AV1>
F;28-44/Region: endonexin fold #status predicted
F;89-160/Domain: annexin repeat homology <AX2>
F;100-116/Region: endonexin fold #status predicted
F;172-244/Domain: annexin repeat homology <AX3>
F;184-200/Region: endonexin fold #status predicted
F;248-319/Domain: annexin repeat homology <AX4>
F;259-275/Region: endonexin fold #status predicted
F;1/Modified site: acetylated amino end (Ala) #status predicted
F;22/Binding site: phosphate (covalent) #status experimental
F;27,29,31,71/Binding site: calcium, high affinity (Met, Gly, Gly, Glu) #status experimental
F;32,34,35/Binding site: calcium, low affinity (Thr, Gly, Glu) #status predicted
F;72,77/Binding site: calcium, low affinity (Leu, Glu) #status predicted
F;99,101,103,143/Binding site: calcium, high affinity (Leu, Gly, Gly, Asp) #status predi...
F;258,260,262,302/Binding site: calcium, high affinity (Met, Gly, Gly, Asp) #status pred...

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Qy    3  LRGTVTVDFSGFDGRADAEVLRKAMKGLGTDEDSIILNLLTARSNAQRQEIAEEFKTLFGRD   62
         |||||| ||.|||.||||| |||||||||||||.||| |||.||||||||||||. |||||||
Db    4  LRGTVADFPGFDERADAETLRKAMKGLGTDEESIILTLLTSRSNAQRQEIAVARKTLFGRD    63
Qy   63  LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  122
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Query Match
Best Local Similarity 91.8%;
Conservative 10;
Matches 291; Mismatches 16; Indels 0; Gaps 0;
91.8%; Score 1467; DB 1; Length 320;
Pred. No. 2.4e-88;

RESULT 3
AQHUP
annexin v [validated] - human
N;Alternate names: endonexin II; lipocortin V; placental anticoagulant protein; plac...
C;Species: Homo sapiens (man)
C;Date: 30-Jun-1992 #sequence_revision 30-Jun-1992 #text_change 08-Dec-2000
C;Accession: D29250; A30206; A28076; S01016; A29417; A41514; A28038; C31953; S05646;...
R;Pepinsky, R.B.; Tizard, R.; Mattaliano, R.J.; Sinclair, L.K.; Brownli...
J. Biol. Chem. 263, 10799-10811, 1988
A;Title: Five distinct calcium and phospholipid binding proteins share homology with...
A;Reference number: A92659; MUID:88273202; PMID:2968983
A;Accession: D29250
A;Molecule type: mRNA
A;Residues: 1-320 <PEP>
R;Grundmann, U.; Abel, K.J.; Bohn, H.; Loebermann, H.; Lottspeich, F.; Kuepper, H.
Proc. Natl. Acad. Sci. U.S.A. 85, 3708-3712, 1988
A;Title: Characterization of cDNA encoding human placental anticoagulant protein (PP4...
A;Reference number: A30206; MUID:88234495; PMID:2967495
A;Accession: A30206
A;Molecule type: mRNA
A;Residues: 1-320 <GRU>
R;Kaplan, R.; Jaye, M.; Burgess, W.H.; Schlaepfer, D.D.; Haigler, H.T.
J. Biol. Chem. 263, 8037-8043, 1988
A;Title: Cloning and expression of cDNA for human endonexin II, a Ca(2+) and phospho...
A;Reference number: A28076; MUID:88228020; PMID:2967291
A;Accession: A28076
A;Molecule type: mRNA
A;Residues: 1-320 <KAP>
R;Maurer-Fogy, I.; Reutelingsperger, C.P.M.; Pieters, J.; Bodo, G.; Stratowa, C.; Ha...
Eur. J. Biochem. 174, 585-592, 1988
A;Title: Cloning and expression of cDNA for human vascular anticoagulant, a Ca-depen...
A;Reference number: S01016; MUID:88271329; PMID:2455636
A;Accession: S01016
A;Molecule type: mRNA
A;Residues: 1-320 <MAU>
A;Accession: A29417
A;Molecule type: mRNA
A;Residues: 1-320 <FUN>
R;Funakoshi, T.; Hendrickson, L.E.; McMullen, B.A.; Fujikawa, K.
Biochemistry 26, 8087-8092, 1987
A;Title: Primary structure of human placental anticoagulant protein.
A;Reference number: A29417; MUID:88163463; PMID:2564863
A;Contents: amino-terminal acetylation
R;Iwasaki, A.; Suda, M.; Nakao, H.; Nagoya, T.; Saino, Y.; Arai, K.; Mizoguchi, T.;...
J. Biochem. 102, 1261-1273, 1987
A;Title: Structure and expression of cDNA for an inhibitor of blood coagulation isol...
A;Reference number: A41514; MUID:88192278; PMID:2963810

Cross-references: EMBl:M18366; NID:g179131; PIDN:AAA35570.1; PID:g179132
Cross-references: EMBl:X12454; NID:g37636; PIDN:CAA30985.1; PID:g37637
Cross-references: GB:J03745; NID:g182111; PIDN:AAA52386.1; PID:g182112
Cross-references: GB:M19384; NID:g189614; PIDN:AAB59545.1; PID:g189615
Cross-references: GB:M21731; NID:g186969; PIDN:AAA36166.1; PID:g9307116

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Db   64  LDDLKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA  123
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Qy   64  ...
Qy  123  IKQYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQLFQAGE   182
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Db  124  IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDARIDEAQVEQDAQALFQAGE  183
Qy  183  LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITDRETSGNLENLLLAVVKSI  242
         |||||||||||||||||||||||||||||||||||||||||||||||||.|:||||||||
Db  184  LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEITDRETSGNLEQLLLAVVKSI  243
Qy  243  RSIPAYLAETLLYYAMKGAGTDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDT  302
         ||||||||||||||||||||||||||||||||||||.||||||||||.:||||||||||
Db  244  RSIPAYLAETLLYYAMKGAGTDHTLIRVIVSRSEIDLYNIRKEFRKNFGISLYSMIKGDT  303
Qy  303  SGDYKKALLLLCGGEDD  319
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Db  304  SGDYKKALLLLCGGEDD  320
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A;Accession: A41514
A;Molecule type: mRNA
A;Residues: 1-320 <IWA>
A;Reference number: A28038
A;Cross-references: GB:D00172; NID:g219480; PIDN:BAA00122.1; PID:g219481
A;Note: part of this sequence was confirmed by protein sequencing
R;Schlaepfer, D.D.; Mehlman, T.; Burgess, W.H.; Haigler, H.T.
Proc. Natl. Acad. Sci. U.S.A. 84, 6078-6082, 1987
A;Title: Structural and functional characterization of endonexin II, a calcium- and phos
ibitor.
A;Accession: C31953
A;Molecule type: protein
A;Residues: 85-93 <AHN>
R;Rothhut, B.; Comera, C.; Cortial, S.; Haumont, P.Y.; Diep Le, K.H.; Cavadore, J.C.; Co
Biochem. J. 263, 929-935, 1989
A;Title: A 32 kDa lipocortin from human mononuclear cells appears to be identical with
A;Reference number: S06646; MUID:90088443; PMID:2532007
A;Accession: S06646
A;Molecule type: protein
A;Residues: 86-131, 'W', 260-272, 274-297, 300-315, 'X', 317-320 <SCH>
R;Ahn, N.G.; Teller, D.C.; Bienkowski, M.J.; McMullen, B.A.; Lipkin, E.W.; de Haen, C.
J. Biol. Chem. 263, 18657-18663, 1988
A;Title: Sedimentation equilibrium analysis of five lipocortin-related phospholipase A-2
A;Reference number: A92696; MUID:89066652; PMID:2974032
A;Accession: A92696
A;Molecule type: protein
A;Residues: 7-25,27-42,51-74,'X',76-151,181-198,202-207,209-226,228-238,246-271,277-282;
R;Huber, R.; Schneider, M.; Mayr, I.; Roemisch, J.; Paques, E.P.
FEBS Lett. 275, 15-21, 1990
A;Title: The calcium binding sites in human annexin v by crystal structure analysis at 2
A;Note: three calcium ions are strongly bound at sites in the first, second, and fourth
A;Contents: annotation; X-ray crystallography, 2.0 angstroms
R;Funakoshi, T.; Heimark, R.L.; Hendrickson, L.E.; McMullen, B.A.; Fujikawa, K.
Biochemistry 26, 5572-5578, 1987
A;Title: Human placental anticoagulant protein: isolation and characterization.
A;Reference number: A29670; MUID:88050845; PMID:2960376
A;Accession: A29670
A;Molecule type: protein
A;Accession: I37172
A;Reference number: I37172; MUID:95047404; PMID:7958998
Gene 149, 253-260, 1994
R;Fernandez, M.P.; Morgan, R.O.; Fernandez, M.R.; Carcedo, M.T.
A;Residues: 29-73,274-297,300-320 <FU2>
A;Title: The gene encoding human annexin V has a TATA-less promoter with a high G+C cont
A;Accession: I71172
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
C;Genetics:
C;Gene: GDB:ANX5
A;Cross-references: GDB:120555; OMIM:131230
A;Map position: 4q26-4q28
A;Introns: 3/3; 32/1; 63/3; 101/3; 132/1; 158/3; 177/3; 209/1; 241/1; 260/3; 301/3
A;Superfamily: annexin I; annexin repeat homology
C;Keywords: acetylated amino end; anticoagulant; calcium binding; duplication; endonexin
derstood.
C;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospholip
C;Comment: Annexin V has been proposed to play a role in the inhibition of blood coagula
olipid-binding rather than proteolytic inactivation. It does not affect thrombin-depende
F;2-320/Product: annexin V #status experimental <MAT>
F;18-89/Domain: annexin repeat homology <AXl>
F;29-45/Region: endonexin fold #status predicted
F;90-161/Domain: annexin repeat homology <AX2>
F;101-117/Region: endonexin fold #status predicted
F;173-245/Domain: annexin repeat homology <AX3>
F;185-201/Region: endonexin fold #status predicted
F;249-320/Domain: annexin repeat homology <AX4>
F;260-276/Region: endonexin fold #status predicted
F;2/Modified site: acetylated amino end (Ala) (in mature form) #status predicted
F;23/Binding site: phosphate (Thr) (covalent) #status predicted
F;28,30,32,72/Binding site: calcium, high affinity (Met, Gly, Glu) #status experime
F;33,35,36/Binding site: calcium, low affinity (Thr, Glu, Glu) #status experimental

F;73,78/Binding site: calcium, low affinity (Leu, Glu) #status experimental
F;100,102,104,144/Binding site: calcium, high affinity (Leu, Gly, Asp) #status e:
F;259,261,263,303/Binding site: calcium, high affinity (Met, Gly, Asp) #status e.

Query Match
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Matches 290; Conservative 12; Pred. No 2.5e-87; Mismatches 14; Indels 1; Gaps 1;

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Db   5 LRGTVTDFPGFDERADAETLRKAMKGLGTDEESILTLLTSRSNAQRQEISAAFKTLFGRD 64

Qy  63 LVNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRA 122
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Db  65 LLDDLKSELTGKFEKLIVALMKPSRLYDAYELKRALKGAGTNEXVLTEIIASRTPEELRA 124

Qy 123 IKQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGE 182
         |||.||||||| |||||||||||||||||||||||||||| ||:||||::|||||||||
Db 125 IKQVYEEEYGSSLEDDVVGDTSGYYQRMLVVLLQANRDPDAGIDEAQVEQDAQALFQAGE 184

Qy 183 LKWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSI 242
         |||||||||||||:|||||||||:||||:|:|||||||||||||||||||:|:||||||
Db 185 LKWGTDEEKFITIFGTRSVSHLRKVFDKXTMIISGFQIEETIDRETSGNLEQLILAVVKSI 244

Qy 243 RSIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLLNIREEFRKNFATSLYSMIKGDT 302
         |||||||||||||||||||||||||||:||||||||:|||:|:||||||||| |||||||
Db 245 RSIPAYLAETLYYAMKGAGTDDHTLIRVNVSRSEIDLFNIRKEPFRKNFATSLLYSMIKGDT 304

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RESULT 4
LUCH5
annexin V - chicken
N;Alternate names: anchorin CII; endonexin II; lipocortin V; placental anticoagulant
C;Species: Gallus gallus (chicken)
C;Date: 30-Sep-1992 #sequence revision 30-Sep-1992 #text_change 02-Jun-2000
C;Accession: A35381; A28623; B40404; S32523; S08771
R;Fernandez, M.P.; Selmin, O.; Martin, G.R.; Yamada, Y.; Pfaeffle, M.; Deutzmann, R.;
J. Biol. Chem. 265, 8344, 1990
A;Contents: erratum
A;Reference number: A35381; MUID:90243721; PMID:2159478
A;Accession: A35381
A;Molecule type: mRNA
A;Residues: 1-321 <FER>
A;Cross-references: GB:M30971; GB:J03194; NID:g211138; PIDN:AAA48591.1; PID:g211139
R;Fernandez, M.P.; Selmin, O.; Martin, G.R.; Yamada, Y.; Pfaeffle, M.; Deutzmann, R.;
J. Biol. Chem. 263, 5921-5925, 1988
A;Title: The structure of anchorin CII, a collagen binding protein isolated from chon
A;Reference number: A28623; MUID:88186517; PMID:2833522
A;Accession: A28623
A;Molecule type: protein
A;Residues: 1-118, 'LLKCRILNRFNMQEYEANLGRNKITGRRHQAIFRDCWWSCCRQEI', 163-167, 'E', 169-32
A;Cross-references: GB:M30971; GB:J03194; NID:g211138
R;Genge, B.R.; Wu, L.N.Y.; Adkisson IV, H.D.; Wuthier, R.E.
J. Biol. Chem. 266, 10678-10685, 1991
A;Title: Matrix vesicle annexins exhibit proteolipid-like properties. Selective parti
A;Reference number: A40404; MUID:91244852; PMID:2037607
A;Accession: B40404
A;Molecule type: protein
A;Residues: 188-199 <GEN>
A;Experimental source: epiphyseal growth plate cartilage (matrix vesicle-enriched mic
R;Boustead, C.M.; Brown, R.; Walker, J.H.
Biochem. J. 291, 601-608, 1993
A;Title: Isolation, characterization and localization of annexin V from chicken liver
A;Reference number: S32523; MUID:93249384; PMID:8484740
A;Accession: S32523
A;Status: preliminary
A;Molecule type: protein
A;Residues: 6-20,'85','X',87-88,'X',90-93,'X',95-96,'X',99-100,'X',102-103,'XX',106-10
C;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospho

derstood.
C;Comment: Annexin V has been proposed to play a role in the inhibition of blood coagula
C;lipid-binding rather than proteolytic inactivation. It does not affect thrombin-depende
C;Superfamily: annexin I; annexin repeat homology
C;Keywords: calcium binding; collagen binding; duplication; endonexin fold; membrane-ass
C;Product: annexin V #status predicted <MAT>
F;-321/Product: annexin V #status predicted <MAT>
F;18-89/Region: annexin repeat homology <AX1>
F;29-45/Region: endonexin fold #status predicted
F;90-161/Domain: annexin repeat homology <AX2>
F;101-117/Region: endonexin fold #status predicted
F;173-245/Domain: annexin repeat homology <AX3>
F;185-201/Region: endonexin fold #status predicted
F;249-320/Domain: annexin repeat homology <AX4>
F;260-276/Region: endonexin fold #status predicted
F;28,30,32,72/Binding site: calcium, high affinity (Met, Gly, Gly, Glu) #status predicte
F;33,35,36/Binding site: calcium, low affinity (Thr, Glu, Glu) #status predicted
F;73,78/Binding site: calcium, low affinity (Leu, Glu)
F;100,102,104,144/Binding site: calcium, high affinity (Ile, Gly, Gly, Glu) #status pred
F;259,261,263,303/Binding site: calcium, high affinity (Met, Gly, Gly, Asp) #status pred

Query Match   78.7%;   Score 1257; DB 1; Length 321;
Best Local Similarity 77.2%; Pred. No. 1.1e-74;
Matches 244; Conservative 39; Mismatches 33; Indels 0; Gaps 0;

Qy   4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL 63
            ||||| |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   6 RGTVTAFSPFDARADAEALRKAMKGMGTDEETILKIITSRNNAQRQEIASAFKTLFGRDL 65

Qy   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLKGAGTDEKVLTEIIASRTPEELRAI 123
            |:|||||||:||||||::|||||||||||||||:|:||||||||||:|||||||||||||
Db   66 VDDLKSELTGKFETLMVSLMRPARIFDAHALKHAIKGAGTNDKVLTEIIASRTPAEVQNI 125

Qy   124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL 183
            |||||||||:|||||:||||||||||:|||||||||||||||||||||||||||||||
Db   126 KQVTMQEYEANLEDKITGETSGHFQRLLVVLLQANRDPDGRVDEALVEKDAQVLFRAGEL 185

Qy   184 KWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 243
            ||||||||||||||||||||||:|||||:|||||||||||||||||||||||||||||
Db   186 KWGTDEETFTTILGTRSVSHLRRVFDKYWTISGFQIEETIDRETSGDLEKLLLAVVKCIR 245

Qy   244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
            ||||||||||||||||||||||||||||||||||||:||||||||||||||||||||||
Db   246 SVPAYFAETLYYSMKGAGTDDDTLIRVMVSRSEIDLDIRHEFRKNFAKSLYQMIKDTS 305

Qy   304 GDYKKALLLLCGGEDD 319
            ||||||||||||||:|
Db   306 GDYRKALLLLCGGDDE 321

RESULT 5
S52844
annexin VI - rat
annexin VI #status predicted
N;Alternate names: calcium-binding protein 65/67
A;Experimental source: liver
C;Species: Rattus norvegicus (Norway rat)
C;Superfamily: annexin VI; annexin repeat homology
C;Keywords: acetylated amino end; calcium binding
C;Product: annexin VI #status predicted <MAT>
A;Accession: S65683; S52844
R;Fan, H.; Josic, D.; Lim, Y.P.; Reutter, W.
A;Title: cDNA cloning and tissue-specific regulation of expression of rat calcium-bindi
A;Reference number: S65683; MUID:95311313; PMID:7607247
A;Accession: S65683
A;Molecule type: mRNA
A;Residues: 1-673 <PAN>
A;Cross-references:
A;Superfamily: annexin VI; annexin repeat homology
A;Keywords: acetylated amino end; calcium binding; endonexin fold; membrane-associated
F;2/Modified site: acetylated amino end (Ala) (in mature form) #status predicted

F;-673/Product: annexin VI #status predicted <MAT>
F;2-673/Domain: annexin repeat homology <AX1>
F;23-94/Region: endonexin fold #status predicted
F;34-50/Region: endonexin fold #status predicted
F;95-166/Domain: annexin repeat homology <AX2>
F;106-122/Region: endonexin fold #status predicted
F;178-250/Domain: annexin repeat homology <AX3>

RESULT 6
S01786
annexin VI - mouse
N;Alternate names: calcium-binding protein p68; calelectrin; calphobindin II
C;Species: Mus musculus (house mouse)
A;Reference number: S01786; MUID:89030687; PMID:2972541
C;Date: 30-Sep-1989 #sequence_revision 26-May-1994 #text_change 22-Jun-1999
C;Accession: S01786
R;Moss, S.E.; Crumpton, M.R.; Crumpton, M.J.
Eur. J. Biochem. 177, 21-27, 1988
A;Title: Molecular cloning of murine p68, a Ca-binding protein of the lipocortin fami
A;Reference number: S01786; MUID:89030687; PMID:2972541
A;Molecule type: mRNA
A;Residues: 1-673 <MOS>
A;Cross-references: EMBL:X13460; NID:g53580; PIDN:CAA31808.1; PID:g53581
A;Note: the authors translated the codon GCC for residue 329 as Gly
C;Comment: This abundant cytosolic protein binds to the inner surface of the cell men
C;Superfamily: annexin VI; annexin repeat homology
C;Keywords: acetylated amino end; calcium binding; duplication; endonexin fold; phosp

Query Match   58.4%;   Score 934; DB 1; Length 673;
Best Local Similarity 57.9%; Pred. No. 2.9e-53;
Matches 183; Conservative 54; Mismatches 79; Indels 0; Gaps 0;

Qy   4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL 63
            ||||| |||||||||||||||||||||||||||||||||||||||||||||||||||||
Db   11 RGSVHDFADFDANQDAEALYTAMKGFGSDKESILELIITSRSNKQRQEICQSYKSLYGKDL 70

Qy   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLKGAGTDEKVLTEIIASRTPEELRAI 123
            |:||||||:|||:|| ||| |:|||||||||||:|||||||||||:|||||||||||||
Db   71 IADLKYELTGKFERLIVNLMRPLAYCDAKEIKDAISGIGTDEKCLIEILASRTNEQIHQL 130

Qy   124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL 183
            |||||||||:|||||||||||||||||:|||||||||||||||||||||||||||||
Db   131 VRAYKDAYERDLESDIIGDTSGHFQKMLVVLLQGTRENDDVVSEDLVQQVQDLYEAGEL 190

Qy   184 KWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 243
            ||||||:|||||||||||||||||||||||||||||||||||||||||||||||||||
Db   191 KWGTDEAQFIYILGNRSKQHLRLVFDEYLKYTGKPIEASIRGELSGDFEKLMLAVVKCIR 250

Qy   244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
            ||||||||||||||||||||||||||||||||||||:||||||||||||||||||||
Db   251 STPEYFAERLFKAMKGLGTRDNTLIRIMVSRSELDMLDIREIFRTKYEKSLYSMIKNDTS 310

Qy   304 GDYKKALLLLCGGEDD 319
            ||||||||||||||:|
Db   311 GEYKKALLKLCGGDDD 326

F;449-465/Region: endonexin fold #status predicted
F;527-598/Domain: annexin repeat homology <AX7>
F;538-554/Region: endonexin fold #status predicted
F;602-673/Domain: annexin repeat
F;613-629/Region: endonexin fold #status predicted
F;613-629/Domain: annexin repeat homology <AX8>
F;2/Modified_site: acetylated amino end (Ala) (in mature form) #status predicted

Query Match   58.4%; Score 933; DB 1; Length 673;
Best Local Similarity   57.9%; Pred. No. 3.3e-53;
Matches 183; Conservative 53; Mismatches 80; Indels   0; Gaps   0;

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Qy     4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRRQEIAEEFKTLFGRDL 63
         |||| |  ||| ||||||||||:|||||||||:||||  | :||||||||||  | :| :|
Db    11 RGSVHDFPEFDANQDABALYTPAMKGFGSDKESILIELITSRSNKQRQEICQSYKSLYGKDL 70

Qy    64 VNDMKSLITGKFEKLIVALMKPSRLYDAYELKHAKTHAKLGAGTDDEKVLTEIIASRTPEELRAI 123
         ||| :|  |||| ||  | ||| ||||||| | | : |:| || ||   ||| ||||||  | :|
Db    71 IEDLKYELTGKFERLIVNLMRPLAYCDAKEIDAIGIGTDEKCLIEILASRTNEQMHQL 130

Qy   124 KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL 183
         | ||  : | ||||  |||||: |:|||||||| : :|   |   | :|  ::| | ||
Db   131 VAAYKDAYERDLESDIIGDTSGHFQKMLVVLLQGTRENDDVVSEDLVQQDVQDLYEAGEL 190

Qy   184 KWGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIR 243
         |||||| ||  | |  ||  ||| ||| | | | | ||| : || | : | || |||| :|
Db   191 KWGTDEAQFIYILGNRSKQHLRLVFDEYLKTTGKPIEASTRGELSGDFEKLMLAVVKCTR 250

Qy   244 SIPAYLAETLIYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
         | | :: | |  |||| |||| |||||||||||| | :||| |  ||  ||||||| |||
Db   251 STPEYFAERLFKAMKGLGTRDNTLIRIMVSRSELDMLDIREIFRTKYEKSLYSMIKNDTS 310

Qy   304 GDYKKALLLLCGGEDD 319
         |:|||||| ||||  |
Db   311 GEYKKALLKLCGGDDD 326
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RESULT 7
A42077
annexin IV - human
N;Alternate names: endonexin I; placental anticoagulant protein II; PP4-X protein
C;Species: Homo sapiens (man)
C;Date: 30-Jan-1993 #sequence_revision 26-May-1994 #text_change 22-Jun-1999
R;Accession: A42077; B42077; S07434; A31953; A31046
R;Tait, J.F.; Smith, C.; Frankenberry, D.A.; Miao, C.H.; Adler, D.A.; Disteche, C.M.
Genomics 12, 313-318, 1992
A;Title: Chromosomal mapping of the human annexin IV (ANX4) gene.
A;Reference number: A42077; MUID:92155721; PMID:1346776
A;Accession: A42077
A;Molecule type: DNA
A;Residues: 1-321 <TA1>
A;Cross-references: GB:M82809; NID:g178698; PIDN:AAA51740.1; PID:g178699

R;Grundmann, U.; Amann, E.; Abel, K.J.; Kuepper, H.A.
Behring Inst. Mitt. 82, 59-67, 1988
A;Title: Isolation and expression of cDNA coding for a new member of the phospholipase A...
A;Reference number: S07434; MUID:88309022; PMID:2970257
A;Accession: S07434
A;Molecule type: mRNA
A;Residues: 1-97 <GRU>
A;Cross-references: EMBL:M19383; NID:g189616; PIDN:AAC41689.1; PID:g189617

R;Ahn, N.G.; Teller, D.C.; Bienkowski, M.J.; McMullen, B.A.; Lipkin, E.W.; de Haen, C.
J. Biol. Chem. 263, 18657-18663, 1988
A;Title: Sedimentation equilibrium analysis of five lipocortin-related phospholipase A-2 inhibitor.
A;Reference number: A92696; MUID:89066652; PMID:2974032
A;Accession: A31953
A;Molecule type: protein
A;Residues: 29-58,101-126,282-310 <AHN>

R;Tait, J.F.; Sakata, M.; McMullen, B.A.; Miao, C.H.; Funakoshi, T.; Hendrickson, L.E.;
Biochemistry 27, 6268-6276, 1988

A;Title: Placental anticoagulant proteins: isolation and comparative characterization
A;Reference number: A90534; MUID:89118212; PMID:2975506
A;Accession: A31046
A;Genetics:
A;Gene: GDB:ANX4
A;Cross-references: GDB:131395; OMIM:106491
A;Map position: 2p13-2p13
A;Introns: 102/3
C;Superfamily: annexin IV; annexin repeat homology
C;Keywords: acetylated amino end; calcium binding; duplication; endonexin fold; glyco...
C;Product: annexin IV; annexin repeat homology <MAT>
F;2-321/Product: annexin IV; calcium binding <AXI>
F;19-90/Domain: annexin repeat homology <AX1>
F;30-46/Region: endonexin fold #status predicted
F;91-162/Domain: annexin repeat homology <AX2>
F;102-118/Region: endonexin fold #status predicted
F;174-246/Domain: annexin repeat homology <AX3>
F;186-202/Region: endonexin fold #status predicted
F;250-321/Domain: annexin repeat homology <AX4>
F;261-277/Region: endonexin fold #status predicted
F;2/Modified_site: acetylated amino end (Ala) (in mature form) #status predicted
F;9/Binding_site: phosphate (Thr) (covalent) (by protein kinase C) #status predicted
F;247/Binding_site: carbohydrate (Asn) (covalent) #status predicted

Query Match   57.6%; Score 921; DB 1; Length 321;
Best Local Similarity   57.3%; Pred. No. 8e-53;
Matches 180; Conservative 56; Mismatches 78; Indels   0; Gaps   0;

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Qy     5 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRRQEIAEEFKTLFGRDLV 64
         ||| | ||| :|| | |||||||||||||| :|| |  | ||: |||||  |: |:|||| 
Db     8 GTVKAASGFNAMEDAQTLRKAMKGLGTDEDAIISVLAYRNTAQRQEIRAYKSTIGRDLI 67

Qy    65 NDMKSLITGKFEKLIVALMKPSRLYDAYELKHAKTHAKLGAGTDDEKVLTEIIASRTPEELRAIK 124
         :|:| |: |:|| |||   :    | |  ||:|| |  ||| | || ||||||||||||| ||:
Db    68 DDLKSELSGNFEQVIVGMMMTPTVLLYDVQELRRAMKGAGTDEGCLIEILASRTPEEIRIS 127

Qy   125 QAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGELK 184
         | |  ||  ||||   ||| :  |:||  |     :   |||| | :|||::| ||| |
Db   128 QTYQQQYGRSLEDDIRSDTSFMFQRVLVSLSAGGRDEGNYLDDALVRQDAQDIYEAGEKK 187

Qy   185 WGTDEEKFPITILGTRSVSHLRRVFDKYMTISGFQIEETIDRETSGNLENLLLAVVKSIRS 244
         |||||  |  |:   | ::| | |||:|   | ::|::|| | | | | ||| |:|| |:
Db   188 WGTDEVKFLTVLCSRNRNHLLHVFDEYKRISQKDIEQSIKSETGSFEDALLAIVKCMRN 247

Qy   245 IPAYLAETLIYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTSG 304
          | : ||:| |:||| ||||:||||::||| ||:| :||: :|::  |||||| |||||
Db   248 KSAYFAEKLYKSMKGLGTDDNTLIRVMVSRAEIDMLDIRAHFKRLYGKSLYSFIKGDTSG 307

Qy   305 DYKKALLLLCGGEDD 318
         || | || :|||  |
Db   308 DYRKVLLVLCGGDDD 321
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RESULT 8
AQHU68
annexin VI [validated] - human
N;Alternate names: calcium-binding protein, 68K; calelectrin; calphobindin II
C;Species: Homo sapiens (man)
C;Date: 31-Mar-1992 #sequence_revision 30-Sep-1992 #text_change 08-Dec-2000
C;Accession: JU0032; S00263; S18519; A31079; JX0091; B34459; B31953; A53507
R;Iwasaki, A.; Suda, M.; Watanabe, M.; Nakao, H.; Hattori, Y.; Nagoya, T.; Saino, Y.;
J. Biochem. 106, 43-49, 1989
A;Title: Structure and expression of cDNA for calphobindin II, a human placental coag...
A;Reference number: JU0032; MUID:89380132; PMID:2528541
A;Accession: JU0032
A;Molecule type: mRNA
A;Residues: 1-673 <IWA>
A;Cross-references: EMBL:D00510; NID:g219550; PIDN:BAA00400.1; PID:g219551
R;Crompton, M.R.; Owens, R.J.; Totty, N.F.; Moss, S.E.; Waterfield, M.D.; Crumpton, M...
EMBO J. 7, 21-27, 1988
A;Title: Primary structure of the human, membrane-associated Ca(2+)-binding protein p...
A;Reference number: S00265; MUID:88196081; PMID:3258820

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A;Accession: S00263
A;Molecule type: mRNA
A;Residues: 1-618,'D',620-673 <CR1>
A;Cross-references: EMBL:Y00097; NID:g35217; PIDN:CAA68286.1; PID:g35218
A;Accession: S18519
A;Molecule type: protein
A;Residues: 103-113;167-172,'X',174-177;232-235,'F',237-240;251-258;277-281;359-362,'G'
A;Note: the sequence from Fig. 6 is inconsistent with that from Fig. 4 in having 619-Glu
A;Note: eight calcium ions are bound in the presence of phospholipid
R;Suedhof, T.C.; Slaughter, C.A.; Leznicki, I.; Barjon, P.; Reynolds, G.A.
  Proc. Natl. Acad. Sci. U.S.A. 85, 664-668, 1988
A;Title: Human 67-kDa calelectrin contains a duplication of four repeats found in 35-kDa
A;Reference number: A31079; MUID:88124902; PMID:2963335
A;Accession: A31079
A;Molecule type: mRNA
A;Residues: 1-225,'T',556-673 <SUE>
A;Cross-references: GB:J03578; NID:g179975; PIDN:AAA35656.1; PID:g179976
R;Yoshizaki, H.; Mizoguchi, T.; Arai, K.; Shiratsuchi, M.; Shidara, Y.; Maki, M.
  J. Biochem. 107, 43-50, 1990
A;Title: Structure and properties of calphobindin II, an anticoagulant protein from huma
A;Reference number: JX0091; MUID:90236978; PMID:2139657
A;Accession: JX0091
A;Molecule type: protein
A;Residues: 2-299;307-314;320-445;447-549;581-673 <YOS>
R;Hayashi, H.; Owada, M.K.; Sonobe, S.; Kakunaga, T.
  J. Biol. Chem. 264, 17222-17230, 1989
A;Title: Characterizations of two distinct Ca(2+)-dependent phospholipid-binding protein
A;Reference number: A34459; MUID:90008880; PMID:2529258
A;Accession: B34459
A;Molecule type: protein
A;Residues: 10-25;68-75;136-151;192-207;209-220;300-306 <HAY>
R;Ahn, N.G.; Teller, D.C.; Bienkowski, M.J.; McMullen, B.A.; Lipkin, E.W.; de Haen, C.
  J. Biol. Chem. 263, 18657-18663, 1988
A;Title: Sedimentation equilibrium analysis of five lipocortin-related phospholipase A-2
  inhibitor.
  Biochemistry 33, 1223-1228, 1994
A;Reference number: A53507; MUID:94153307; PMID:8110754
A;Accession: A53507
A;Molecule type: protein
A;Residues: 90-108,'L',110-126;127,265-276;286-302;626-654 <AHN>
R;Hyatt, S.L.; Liao, L.; Chapline, C.; Jaken, S.
A;Reference number: B31953
A;Molecule type: protein
A;Residues: 'X',473-480,'DY' <HYA>
A;Title: Identification and characterization of alpha-protein kinase C binding proteins
A;Comment: This abundant cytosolic protein binds to the inner surface of the cell membra
C;Genetics:
A;Gene: GDB:ANX6
C;Cross-references: GDB:119681; OMIM:114070
A;Map position: 5q2-5q34
C;Superfamily: annexin VI; annexin repeat homology
C;Keywords: acetylated amino end; calcium binding; duplication; endonexin fold; phosphol
F;2-673/Product: annexin VI #status experimental <MAT>
F;23-94/Domain: annexin repeat homology <AX1>
F;34-50/Region: endonexin fold #status predicted
F;106-122/Region: annexin repeat homology <AX2>
F;178-250/Domain: annexin repeat homology <AX3>
F;190-206/Region: endonexin fold #status predicted
F;254-325/Domain: annexin repeat homology <AX4>
F;265-281/Region: endonexin fold #status predicted
F;366-437/Domain: annexin repeat homology <AX5>
F;377-393/Region: endonexin fold #status predicted
F;449-509/Domain: annexin repeat homology <AX6>
F;449-465/Region: endonexin fold #status predicted
F;527-598/Domain: annexin repeat homology <AX7>
F;538-554/Region: endonexin fold #status predicted
F;602-673/Domain: annexin repeat homology <AX8>
F;613-629/Region: endonexin fold #status predicted
F;2/Modified site: acetylated amino end (Ala) (in mature form) #status experimental
```

```
RESULT 9
LUB04
annexin IV - bovine
A;Alternate names: 32K calelectrin; chromobindin IV; endonexin; lipocortin IV; prote
C;Species: Bos primigenius taurus (cattle)
C;Date: 30-Sep-1992 #sequence revision 30-Sep-1992 #text change 22-Jun-1999
C;Accession: A31578; D45066; S59624; A45066; B45066; C45066; F45066; H45066
R;Hamman, H.C.; Gaffey, L.C.; Lynch, K.R.; Creutz, C.E.
  Biochem. Biophys. Res. Commun. 156, 660-667, 1988
A;Reference number: A92696; MUID:89066652; PMID:2974032
A;Molecule type: mRNA
A;Residues: 1-319 <HAM>
A;Cross-references: GB:X13627; NID:g215; PIDN:CAA31954.1; PID:g216; GB:M22248; NID:g
R;Kojima, K.; Ogawa, H.K.; Seno, N.; Yamamoto, K.; Irimura, T.; Osawa, T.; Matsumoto
  J. Biol. Chem. 267, 20536-20539, 1992
A;Title: Carbohydrate-binding proteins in bovine kidney have consensus amino acid se
A;Reference number: A45066; MUID:93015942; PMID:1400371
A;Accession: D45066
A;Molecule type: protein
A;Residues: 10-18,'X',20-22,'X',24-25;29-48;101-107,'X',109-118,'X',194-197,'Y',199,
A;Experimental source: kidney
A;Note: sequence extracted from NCBI backbone (NCBIP:116211, NCBIP:116208, NCBIP:116
A;Note: these fragments are derived from a 33K protein that exhibited Ca++-dependent
A;Note: 12-Met and 12-Tyr were also found
R;Sohma, H.; Matsushima, N.; Watanabe, T.; Hattori, A.; Kuroki, Y.; Akino, T.
  Biochem. J. 312, 175-181, 1995
A;Title: Ca(2+)-dependent binding of annexin IV to surfactant protein A and lamellar
A;Reference number: S59624; MUID:96077142; PMID:7492310
A;Accession: S59624
A;Status: preliminary
A;Molecule type: protein
A;Residues: 29-44;72-77;112-119;163-180;181-190;226-235 <SOH>
A;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phosph
  derstood.
C;Superfamily: annexin I; annexin repeat homology
C;Keywords: calcium binding; duplication; endonexin fold; glycoprotein; phospholipid
F;2-319/Product: annexin IV #status predicted <MAT>
F;17-88/Domain: annexin repeat homology <AX1>
F;28-44/Region: annexin repeat homology <AX1>
F;89-160/Domain: annexin repeat homology <AX2>
F;100-116/Region: endonexin fold #status predicted <AX2>
F;172-244/Domain: annexin repeat homology <AX3>
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Query Match   57.5%;  Score 919;  DB 1;  Length 673;
Best Local Similarity  56.3%;  Pred. No. 2.7e-52;
Matches 178;  Conservative 58;  Mismatches 80;  Indels 0;  Gaps 0;

Qy    4  RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL   63
         |||:|||||||||:|||||||||||||||||||:||||||||||||||::||||||||||
Db   11  RGSIHDFPGFDPNQDAEALYTAMKGFGSDKEAILDIITSRSNRQRQEVCQSYKSLYGKDL   70

Qy   64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHALKGAGTDEKVLTEIIASRTPEELRAI  123
         |||:|:|| |||||||||||:|||  |||:|: |||::|:||||| ||||||||| | :|
Db   71  IADLKYELTGKFERLIVGLMRPPAYCDAKEIKDAISGIGTDEKCLIEILASRTNEQMHQL  130

Qy  124  KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL  183
         |:|:|  |||:|| |||| |||| |||||||||:|||||| ||||| |||:|| |:|||
Db  131  VAAYKDAYERDLEADIIGDTSGHFQRMLVVLLQGTREEDDVVSEDLVQQDVYEAGEL     190

Qy  184  KWGTDEEKFITILGTRSVSHLRRVFDKYXMTISGFQIEETIDRETSGNLENLLLAVVKSIR  243
         |||||||:||||||||| |:|||||: |  ||| || | || |:|||:||| ||||| |
Db  191  KWGTDEAQPIYILGNRSKQHLRLVFDEYLKTYGKPIEASRGELSGDFEKMLVAVVKCIR    250

Qy  244  SIPAYLAEYISYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS  303
         |||| |||:: ||||| |||::|||| :||||||| :|||| || |||:||||||| |||
Db  251  STPEYFAERLFKAMKGLGTRDNTLIRIMVSRSEIDMLDIREIFRIKYEKSLYSMIKNDTS  310

Qy  304  GDYKKALLLLCGGEDD  319
         |:|:|||||:||||||
Db  311  GEYKKTLLKLSGGDDD  326
```

RESULT 10

LUPG4
annexin IV - pig
N;Alternate names: 32K calelectrin; chromobindin IV; endonexin; lipocortin IV; protein I...
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 30-Sep-1992 #sequence_revision 30-Sep-1992
C;Accession: A27107
R;Weber, K.; Johnson, N.; Plessmann, U.; Van, P.N.; Soling, H.D.; Ampe, C.; Vandekerckh...
EMBO J. 6, 1599-1604, 1987
A;Title: The amino acid sequence of protein II and its phosphorylation site for protein
A;Reference number: A27107; MUID:87275850; PMID:2956093
A;Accession: A27107
A;Molecule type: protein
A;Residues: 1-318 <WEB>
A;Experimental source: intestinal epithelium
C;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospholi...
derstood.
C;Superfamily: annexin I; annexin repeat homology
C;Keywords: blocked amino end; calcium binding; duplication; endonexin fold; glycoprotei...
F;16-87/Domain: annexin repeat homology <AX1>
F;27-43/Region: endonexin fold #status predicted
F;88-159/Domain: annexin repeat homology <AX2>
F;99-115/Region: endonexin fold #status predicted
F;171-243/Domain: annexin repeat homology <AX3>
F;183-199/Region: endonexin fold #status predicted
F;247-318/Domain: annexin repeat homology <AX4>
F;258-274/Region: endonexin fold #status predicted
F;1/Modified site: blocked amino end (Ala) (probably acetylated) #status predicted
F;6/Binding site: phosphate (Thr) (covalent) (by protein kinase C) #status predicted
F;124,244/Binding site: carbohydrate (Asn) (covalent) #status predicted

```
Query Match      57.3%;  Score 915;  DB 1;  Length 318;
Best Local Similarity  57.3%;  Pred. No. 1.9e-52;
Matches 180;  Conservative 55;  Mismatches 79;  Indels 0;  Gaps 0;

Qy     5 GTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQOIAEEFKTLFGRDLV 64
           :||| |:|| |:|||||||||||||||||::|||:|||:||::|||:|||:
Db     5 GTIVKAASGFNAAEDAQTLRKAMKGLGTDEDAIISVLAYRSTAQROEIRTAYKSTIGRDLL 64
```

RESULT 11

JC2029
annexin - chicken
N;Alternate names: 67K lipid-dependent Ca2+-binding protein
C;Species: Gallus gallus (chicken)
C;Date: 30-Sep-1993 #sequence_revision 20-Aug-1994 #text_change 17-Mar-1999
C;Accession: JC2029
R;Cao, X.; Genge, B.R.; Wu, L.N.Y.; Buzzi, W.R.; Showman, R.M.; Wuthier, R.E.
Biochem. Biophys. Res. Commun. 197, 556-561, 1993
A;Title: Characterization, cloning and expression of the 67-kda annexin from chicken
A;Reference number: JC2029; MUID:94092130; PMID:8267590
A;Accession: JC2029
A;Molecule type: mRNA
A;Residues: 1-671 <CAO>
C;Superfamily: annexin VI; annexin repeat homology
C;Keywords: calcium binding; annexin repeat homology; phospholipid binding
N;Alternate names: annexin VI
F;21-92/Domain: annexin repeat homology <AX1>
F;93-164/Domain: annexin repeat homology <AX2>
F;176-248/Domain: annexin repeat homology <AX3>
F;252-323/Domain: annexin repeat homology <AX4>
F;364-435/Domain: annexin repeat homology <AX5>
F;436-507/Domain: annexin repeat homology <AX6>
F;525-597/Domain: annexin repeat homology <AX7>
F;601-671/Domain: annexin repeat homology <AX8>

```
Query Match      56.2%;  Score 898;  DB 2;  Length 671;
Best Local Similarity  57.0%;  Pred. No. 6.3e-51;
Matches 180;  Conservative 54;  Mismatches 82;  Indels 0;  Gaps 0;

Qy     4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQOIAEEFKTLFGRDL 63
           || ::||:||:|:|  |:|| |:||| |:||:|||:|:|:|:|||::|:|:| :|: |||
Db     9 RGSVKDFPGFNASQDADALCNAMKGFGSDKDAILDLIITSRSNKQORLEICQAYKSQYGKDL 68

Qy    64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 123
           : |:|:|||||||:|||:||:| : |:|:|:||||| |:|||||:||:|||||:||: 
Db    69 IADLKYELTGKFERLIVSLMRPPAYSDAKEIKDAIAGIGTDEKCLIEILASRTNQEIHDL 128

Qy   124 KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPPTAIDDAQVELDAQALFQAGEL 183
           ::||:::||::||:|||||||||:::::||||||||:::::|:||:||:||::||:|||:
Db   129 VAAYKDAYERDLEADVVGDTSGHFKKMLLVVLLQAREEDDVVSEDLVEQDAKDLLEAGEL 188

Qy   184 KWGTDEEKFITILGTRSVSHLRRVFDKYMTISGFQIEEETIDRETSGNLENLLLAVVKSIR 243
           |||||| :||:|||:||::||:||||:|::|||::||| |:|:|:||::|||:|:|||:|:
Db   189 KWGTDEAQFIYILGRRSKQHLRMVFDEYLKISGKPIERSIRAELSGDFEKLKLAVVKCVR 248

Qy   244 SIPAYLAETLIYYAMKGAGTDDHTILIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
           |: ::|| ||:|:|||||:|||:||||:||||||||:::||: ||:::|:::|||:|:|:|:
Db   249 STAEYFABRLYKAMKGLGTRDNTLIHIMVSRSEIDMLDIREVRTKYDKSLHNMIKEDTS 308

Qy   304 GDYKKALLLLCGGEDD 319
           :|:||:|:|||||:||
Db   304 [ ... ]
```

RESULT 12

LUR811

annexin XI - rabbit

N;Alternate names: calcyclin-associated annexin protein CAP-50
N;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 30-Sep-1993 #sequence_revision 30-Sep-1993 #text_change 16-Jun-2000
C;Accession: JH0694; PH0950; A38250; PS0263
R;Tokumitsu, H.; Mizutani, A.; Muranatsu, M.; Yokota, T.; Arai, K.; Hidaka, H.
Biochem. Biophys. Res. Commun. 186, 1227-1235, 1992
A;Title: Molecular cloning of rabbit CAP-50, a calcyclin-associated annexin protein.
A;Reference number: JH0694; MUID:92378579; PMID:1380798
A;Accession: JH0694
A;Molecule type: mRNA
A;Residues: 1-503 <TOK>
A;Cross-references: DDBJ:D10883; NID:g471147; PIDN:BAA01705.1; PID:g471148
A;Experimental source: lung
A;Accession: PH0950
A;Molecule type: protein
A;Residues: 104-141;213-231;254-262;270-280;285-309;319-337;429-448;478-492 <TK2>
R;Tokumitsu, H.; Mizutani, A.; Minami, H.; Kobayashi, R.; Hidaka, H.
J. Biol. Chem. 267, 8919-8924, 1992
A;Title: A calcyclin-associated protein is a newly identified member of the Ca(2+)/phosp
A;Reference number: A38250; MUID:92250478; PMID:1533622
A;Accession: A38250
A;Molecule type: protein
A;Molecule type: protein
A;Residues: 104-141;213-223,'X',225-231;254-263;271-280;285-291,'X',293-300,'X',302-309;
A;Comment: This protein binds specifically to calcyclin in a Ca2+ dependent manner.
C;Superfamily: annexin VII; annexin repeat homology
C;Keywords: calcium binding; duplication; endonexin fold; glycoprotein; phospholipid bin
F;104-141/Domain: annexin repeat homology <AX1>
F;201-272/Domain: annexin repeat homology <AX1>
F;212-228/Region: annexin repeat homology <AX2>
F;212-228/Domain: annexin repeat homology <AX2>
F;273-344/Domain: annexin repeat homology <AX3>
F;284-300/Region: annexin repeat homology <AX3>
F;356-428/Domain: annexin repeat homology <AX4>
F;356-428/Region: annexin repeat homology <AX4>
F;432-503/Domain: annexin repeat homology <AX4>
F;443-459/Region: endonexin fold #status predicted
F;58/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match   54.8%;   Score 876; DB 1; Length 503;
Best Local Similarity   55.6%;   Pred. No. 1.2e-49;
Matches 175; Conservative 56; Mismatches 84; Indels 0; Gaps 0;

Qy   4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL 63
            |||:|||| |: :| :|:| ||||||:| :|::|::|| ||| :::|::|:|| |||||
Db   4 RGTITDASGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQOILLSFKTAYGKDL 63

Qy   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 123
            :|| |||| |||||| ||||| ||| ||:||| |: ||||||: ||:|:|||||||| |:
Db   64 IKDLKSELSGNFEKTILALMKTPIFDAYEIKEAIKGAGTDEACLIEILASRSNEHIREL 123

Qy   124 KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQQANRDPDTAIDDAQVELDAQALFQAGEL 183
            ||||||||||| | ||| ||| ||||| ||| ||||| ||||||| ||||||:||||||
Db   124 KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQQANRDPDTAIDDAQVELDAQALFQAGEL 183

Qy   184 KWGTDEEKFITILGTRSVSHLRRVPDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
            ||||||||| || |||| ||| | || |||||||||| ||||| |:|||||:||||:||
Db   184 KWGTDEEKFITILGTRSVSHLRRVPDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243

Qy   244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
            ||||||||| |||||||||| |||||:||||||||||||| || || ||||||||||||
Db   244 RLGTDESKFNAVLCSRSRAHLVAVFNEYQRMTGRDIEKSICREMSGDLEQGMLAVVKCLK 303

Qy   304 GDYKKALLLLCGGED 318
            |||:|||||| ||||
Db   304 GDYRKILLKICGGND 503

Db   309 GEYKKALLKICGDDD 324

RESULT 13

LUBO11

annexin XI form A - bovine

N;Alternate names: calcyclin-associated protein peptide, CAP-50
N;Species: Bos primigenius taurus (cattle)
C;Species: Bos primigenius taurus (cattle)
C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 22-Jun-1999
C;Accession: A42113; A42909; B42909; C42909; D42909
R;Towle, C.A.; Treadwell, B.V.
J. Biol. Chem. 267, 5416-5423, 1992
A;Title: Identification of a novel mammalian annexin. cDNA cloning, sequence analysis
A;Reference number: A42113; MUID:92184796; PMID:1372001
A;Accession: A42113
A;Molecule type: mRNA
A;Residues: 1-503 <TOW>
A;Cross-references: GB:M82802; NID:g162673; PIDN:AAA30379.1; PID:g162674
R;Mizutani, A.; Usuda, N.; Tokumitsu, H.; Minami, H.; Yasui, K.; Kobayashi, R.; Hidak
J. Biol. Chem. 267, 13498-13504, 1992
A;Title: CAP-50, a newly identified annexin, localizes in nuclei of cultured fibrobla
A;Reference number: A42909; MUID:92317074; PMID:1618851
A;Experimental source: lung
A;Molecule type: protein
A;Residues: 213-223,'X',225-226;319-325,'G',327-328,'X',330-333,'Q',335-339;441-450,'
A;Note: sequence modified after extraction from NCBI backbone
A;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phosph
deretood.
C;Genetics:
C;Introns: 19/1; 56/2
A;Note: the list of introns is incomplete
C;Superfamily: annexin VII; annexin repeat homology
C;Keywords: calcium binding; duplication; endonexin fold; glycoprotein; phospholipid
F;201-272/Domain: annexin repeat homology <AX1>
F;212-228/Region: annexin repeat homology <AX2>
F;273-344/Domain: annexin repeat homology <AX2>
F;284-300/Domain: annexin repeat homology <AX3>
F;356-428/Region: annexin repeat homology <AX4>
F;368-384/Domain: annexin repeat homology <AX4>
F;432-503/Region: endonexin fold #status predicted
F;443-459/Domain: annexin repeat homology <AX4>
F;59,111/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match   54.4%;   Score 870; DB 1; Length 503;
Best Local Similarity   55.6%;   Pred. No. 2.9e-49;
Matches 175; Conservative 54; Mismatches 86; Indels 0; Gaps 0;

Qy   4 RGTVTDFSGFDGRADAEVLRKAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL 63
            |||:|||| |: :| :|:| ||||||:| :|::|::|| ||| :::|::|:|| |||||
Db   4 RGTITDASGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQOILLSFKTAYGKDL 63

Qy   64 VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 123
            :|| |||| |||||| ||||| ||| ||:||| |: ||||||: ||:|:|||||||| |:
Db   64 IKDLKSELSGNFEKTILALMKTPIFDAYEIKEAIKGAGTDEACLIEILASRSNEHIREL 123

Qy   124 KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQQANRDPDTAIDDAQVELDAQALFQAGEL 183
            ||||||||||| | ||| ||| ||||| ||| ||||| ||||||| ||||||:||||||
Db   124 KQAYEEYGSNLEDDVVGDTSGYYQRMLVVLLQQANRDPDTAIDDAQVELDAQALFQAGEL 183

Qy   184 KWGTDEEKFITILGTRSVSHLRRVPDKXMTISGFQIEETIDRETSGNLENLLIAVVKSIR 243
            ||||||||| || |||| ||| | || |||||||||| ||||| |:|||||:||||:||
Db   184 NRVXTEFKKTLEEAIRSDTSGHFQRLLISLSQGNRDESTNVDMSLVQRDVQELYAAGEN 368

Qy   244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
            ||||||||| |||||||||| |||||:||||||||||||| || || ||||||||||||
Db   244 SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303

Qy   304 GDYKKALLLLCGGED 318
            |||:|||||| ||||
Db   429 NTPAFPAERLNRAMRGAGTKDRTLIRIMVSRSEIDLLDIRAEYKRLYGKSLYHDIGDTS 488

Qy   304 GDYKKALLLLCGGED 318
            |||:|||||| ||||
Db   489 GDYRKILLKICGGND 503

RESULT 14

S23447

annexin XI form B - bovine
C;Species: Bos primigenius taurus (cattle)

```
C;Date: 22-Nov-1993 #sequence_revision 10-Feb-1995 #text_change 22-Jun-1999
C;Accession: S23447; S36136
R;Towle, C.
A;Reference number: S23447
submitted to the EMBL Data Library, February 1992
A;Accession: S23447
C;Genetics:
A;Molecule type: mRNA
A;Residues: 1-505 <TOW>
A;Cross-references: EMBL:Z11742; NID:g977; PIDN:CAA77801.1; PID:g978
R;Towle, C.A.; Weisbach, L.; Treadwell, B.V.
Biochim. Biophys. Acta 1131, 223-226, 1992
A;Title: Alternatively spliced annexin XI transcripts encode proteins that differ near t
A;Reference number: S36136; MUID:92305067; PMID:1535225
A;Molecule type: mRNA
A;Residues: 1-77 <TO2>
A;Cross-references: EMBL:Z11742
C;Comment: Annexins undergo reversible, calcium-dependent binding to membrane phospholip
derstood.
C;Genetics:
A;Introns: 19/1; 58/2
A;Note: the list of introns is incomplete
C;Superfamily: annexin VII; annexin repeat homology
C;Keywords: alternative splicing; calcium binding; duplication; endonexin fold; glycopro
F;203-274/Domain: annexin repeat homology <AX1>
F;214-230/Region: endonexin fold #status predicted
F;275-346/Domain: annexin repeat homology <AX2>
F;286-302/Region: endonexin fold #status predicted
F;358-430/Domain: annexin repeat homology <AX3>
F;370-386/Region: endonexin fold #status predicted
F;434-505/Domain: annexin repeat homology <AX4>
F;445-461/Region: endonexin fold #status predicted
F;61,113/Binding site: carbohydrate (Asn) (covalent) #status predicted
```

```
Query Match             54.4%;   Score 870;   DB 1;   Length 505;
Best Local Similarity   55.6%;   Pred. No. 2.9e-49;
Matches  175;   Conservative  54;   Mismatches  86;   Indels  0;   Gaps  0;

Qy     4  RGTVTDFSGFDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL  63
Db   191  RGTITDASGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQQILLSFKTAYGKDL 250

Qy    64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 123
Db   251  IKDLKSELSGNFEKTILALMKTPVLFDAYEIKEAIKGAGTDEACLIEILASRSNEHIREL 310

Qy   124  KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL 183
Db   311  NRVYKTEFKKTLEEAIRSDTSGHFQRLLISLSQGNRDESTNVDMTLVQRDVQELYAAGEN 370

Qy   184  KWGTDEEKFITILLGTRSVSHLRRVFDKYMISGFQIEETIDRETSGNLENLLLAVVKSIR 243
Db   371  RLGTDESKFNAILCSRSRAHLVAVFNEYQRMTGRDIEKSICREMSGDLEQGMLAVVKCLK 430

Qy   244  SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
Db   431  NTPAFFAERLNXAMRGAGTKDRTLIRIMVSRSEIDLLDIRAEYKRLYGKSLYHDITGDTS 490

Qy   304  GDYKKALLLLCGGED 318
Db   491  GDYRKILLKICGGND 505
```

```
A;Accession: A53152
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-505 <MIS>
C;Genetics:
A;Gene: GDB:ANX11
A;Cross-references: GB:L19605; NID:g457128; PIDN:AAA19734.1; PID:g457129
A;Cross-references: GDB:313076
A;Map position: 9q11-9q22
C;Superfamily: annexin VII; annexin repeat homology
C;Keywords: calcium binding; duplication; endonexin fold; glycoprotein; phospholipid
F;203-274/Domain: annexin repeat homology <AX1>
F;275-346/Domain: annexin repeat homology <AX2>
F;358-430/Domain: annexin repeat homology <AX3>
F;434-505/Domain: annexin repeat homology <AX4>
```

```
Query Match             53.7%;   Score 858;   DB 2;   Length 505;
Best Local Similarity   54.3%;   Pred. No. 1.8e-48;
Matches  171;   Conservative  56;   Mismatches  88;   Indels  0;   Gaps  0;

Qy     4  RGTVTDFSGFDGRADAEVLRXAMKGLGTDEDSILNLLTARSNAQRQQIAEEFKTLFGRDL  63
Db   191  RGTITDAPGFDPLRDAEVLRKAMKGFGTDEQAIIDCLGSRSNKQRQQILLSFKTAYGKDL 250

Qy    64  VNDMKSELTGKFEKLIVALMKPSRLYDAYELKHAKLGAGTDEKVLTEIIASRTPEELRAI 123
Db   251  IKDLKSELSGNFEKTILALMKTPVLFDIYEIKEAIKGVGTDEACLIEILASRSNEHIREL 310

Qy   124  KQAYEEEYGSNLEDDVVGDTSGYYQRMLVVLLQANRDPDTAIDDAQVELDAQALFQAGEL 183
Db   311  NRAYKAEFKKTLEEAIRSDTSGHFQRLLISLSQGNRDESTNVDMSLAQRDADAQELYAAGEN 370

Qy   184  KWGTDEEKFITILLGTRSVSHLRRVFDKYMISGFQIEETIDRETSGNLENLLLAVVKSIR 243
Db   371  RLGTDESKFNAVLCSRSRAHLVAVFNEYQRMTGRDIEKSICREMSGDLEGGMLAVVKCLK 430

Qy   244  SIPAYLAETLYYAMKGAGTDDHTLIRVIVSRSEIDLFNIRKEFRKNFATSLYSMIKGDTS 303
Db   431  NTPAFFAERLNXAMRGAGTKDRTLIRIMVSRSEIDLLDIRSEYKRMYGKSLYHDISGDTS 490

Qy   304  GDYKKALLLLCGGED 318
Db   491  GDYRKILLKICGGND 505
```

```
RESULT 15
A53152
annexin XI - human
C;Species: Homo sapiens (man)
C;Date: 07-Jul-1995 #sequence_revision 07-Jul-1995 #text_change 13-Aug-1999
C;Accession: A53152
R;Misaki, Y.; Pruijn, G.J.M.; van der Kemp, A.W.C.M.; van Venrooij, W.J.
J. Biol. Chem. 269, 4240-4246, 1994
A;Title: The 56K autoantigen is identical to human annexin XI.
A;Reference number: A53152; MUID:94140847; PMID:7508441
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Job time : 11.6549 secs